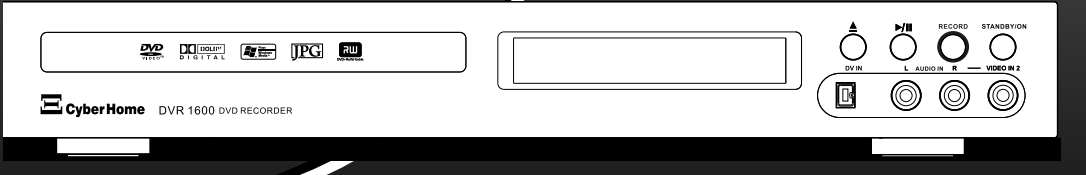
CyberHome

USER MANUAL

DVR 1600



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SAFETY INSTRUCTIONS

Dear Customer,
May we take this opportunity to thank you for purchasing this DVD recorder. We strongly recommend that you carefully study the Operating Instructions before attempting to operate the unit and that you note the listed precautions.

Read instructions: All safety/operating instructions should be read before the product is operated.

Keep these instructions: These instructions should be retained for future reference.

Observe all warnings: Adhere to all warnings on the appliance and in the operating instructions.

Follow all instructions: All operating instructions should be followed.

Accessories: Only use accessories specified by the manufacturer.

Power cord protection: To avoid any malfunctions of the unit and to protect yourself against electric shock, fire or personal injury, please observe the following:

- Hold the plug firmly when connecting or disconnecting the AC power cord.
- Do not connect or disconnect the AC power cord when your hands are wet.
- Keep the AC power cord away from heating appliances.
- Never put any heavy object on the AC power cord.
- Do not attempt to repair or reconstruct the AC power cord in any way.
- Remove dust, dirt, etc. on the plug at regular intervals.
- If the unit has been dropped or otherwise damaged, turn off the power and disconnect the AC power cord.
- If smoke, odours or noises are emitted from the unit, turn off the power and disconnect the AC power cord.

The power cord must be routed properly to prevent people from stepping on them or objects from resting on them. Check the cords at the plugs and product. Do not damage, break or alter the electric cord. Do not cover the cord under a carpet or similar covering, as you may not be aware of it and may place heavy objects on it or damage it.

Power supply: This product must operate on a power source specified on the specification label. If you are not sure of the type of power supply used in your home, consult your dealer or local power company.

External flexible cords: Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable. Where an all-pole mains switch is used as the disconnect device, the location on the apparatus and the function of the switch shall be described, and the switch shall remain readily operable.

Polarized plugs: Do not defect the safety purpose of the polarized plug. A polarized plug has two blades with one wider than the other. The wide blade is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Overloading: Do not overload AC outlets or extension cords as this may cause fire or electric shock.

SAFETY INSTRUCTIONS

Relocating: When relocating the product placed on a cart, it must be moved with utmost care. Sudden stops, excessive force and uneven floor surface may cause the product to fall from the cart.

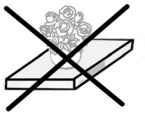
Placing: Please do not place the product on an unstable cart, stand, tripod or table. Placing the product on an unstable base may cause the product to fall resulting in damage to the product. Avoid placing the unit in areas of direct sunlight or heating radiators, high temperature [over 35°C (95°F)] or high humidity (over 90%), excessive dust, vibration, impact or tilted surfaces, as the internal parts may be seriously damaged.

Stacking: Place the unit in a horizontal position and do not place anything heavy on it. Do not place the unit on amplifiers or other equipment, which may become hot.

Heat sources: Keep the product away from heat sources such as radiators, heat registers, stoves or other heat-generating products (including amplifiers).

Ventilation: Do not block any ventilation openings.

Water and moisture: Do not use the product near water, e.g. near a bathtub, washbowl, kitchen sink and laundry tub, in a wet basement or near a swimming pool, etc. When this product is installed beside a window or outdoors, keep it dry, otherwise there is a risk of fire or electric shock.

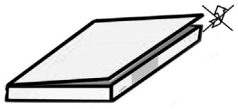


Keep away from liquids and magnets: The device shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the device. Keep magnetic objects, such as speakers, distant from the DVD recorder.

Condensation: Moisture may form on the lens immediately after a heater has been turned on, in a steamy or very humid room or if the unit is moved from a cold environment to a warm one. If moisture forms inside this unit, it may not operate properly. In this case, turn off the power and wait about one hour for the moisture to evaporate.

Non-use periods: Unplug this product during lightning storms. When the unit is not used, turn the power off.

Cleaning: Clean only with a dry cloth. Unplug the power cord from the AC outlet before cleaning the product. Do not use any liquid or detergents for cleaning.



Do not touch internal parts: Touching internal parts of this unit is dangerous and may cause serious damage to the unit. Do not attempt to disassemble the unit. There will be no warranty claim in this case. Do not put any foreign object on the disc tray.

Servicing: Do not attempt to service the product yourself. Removing covers may expose you to high voltage and other dangerous conditions. Refer to qualified service personnel for servicing.

Replacement parts: In case the product needs replacement parts, please make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Any use of unauthorized parts may result in fire, electric shock and/or other danger.

SAFETY INSTRUCTIONS

WARNING

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR ANNOYING INTERFERENCE, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE AND ONLY USE THE RECOMMENDED ACCESSORIES.

CAUTION

To reduce the risk of electric shock, do not remove the cover (or back). No user-servicable parts inside. Refer to qualified service personnel for servicing. Only open the device if it is disconnected from the power source - unplug the power cord!

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of not isolated “dangerous voltage” inside the product that may be sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and servicing instructions in the literature accompanying the appliance.

Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

DANGER

Laser radiation when cover is opened and interlock failed or defeated. Avoid direct exposure to beam.

This DVD recorder is a class 1 laser product. However, this DVD recorder uses a visible laser beam, which could cause hazardous radiation exposure, if directed. Be sure to operate this DVD recorder correctly as instructed.

When this DVD recorder is plugged into the plug socket, do not place your eyes close to the opening of the disc tray and other openings to look into the inside of this recorder.

Do not open covers and do no repairs yourself. Refer to qualified personnel for servicing.

Manufactured under license from Dolby Laboratories. "Dolby” and the double-D symbol are trademarks of Dolby Laboratories.

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

Disclaimer of warranty

The information in this manual is subject to change without notice. Cyber Home assume no liability for direct, indirect, accidental or other damages/consequential damages arising from the use or utilisation of the information contained in this manual.

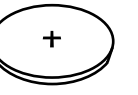
INTRODUCTION

Accessories

In addition to the DVD recorder, please make sure that the following accessories are in the box when you open it. Check the contents of the package carefully, as some items may be located under the packing foam.

You can find the order numbers for the accessories below the pictures. In case of any requirement, please ask your dealer.

Note: Pictures may deviate.

Remote control *CH1600-302-001*	**Battery** (already included in the remote control) 
User manual *CH1600-301-002*	**Power cord** *CH1600-308-001*

Region code information

This DVD recorder has been constructed and produced in the way that it adheres to Local Management information, which are recorded on a Digital Versatile Disc (DVD). If the number of the destination area on a DVD does not correspond with the number of the destination area of this DVD recorder, this device won't be able to play the corresponding disc. The device is set to region code 2.

You can find the region code on the back side of the DVD cover. DVD's must be labelled with "ALL" for all regions or with "2" for region 2, for that they can be played in this device. Should another region be printed on the DVD, it cannot be played in this DVD recorder. The list on the left side shows the various DVD regions of the world.

Region 1	USA, Canada
Region 2	Europe, Middle East, South Africa, Japan
Region 3	Southeast Asia, Taiwan
Region 4	Central and South America, Mexico, Australia, New Zealand
Region 5	Russian federation, Africa (part), India, Pakistan
Region 6	China

INTRODUCTION

Compatibility

Usable disc types

The following discs can be used in your DVD recorder for playback and recording:

Recording and playback:

DVD+RW (Digital Versatile Disc + rewritable)

DVD+R (Digital Versatile Disc + recordable)

Playback only:

DVD-Video (Digital Versatile Disc)

DVD-R (DVD-Recordable)

DVD-RW (DVD-Rewritable)

Audio CD (Compact Disc Digital Audio)

Video CD (format 1.x/2.0)

Super Video CD

CD-R (CD-Recordable) with audio/MP3/JPEG/MPEG/WMA content

CD-RW (CD-Rewritable) with audio/MP3/JPEG/MPEG/WMA content

Kodak Picture-CD

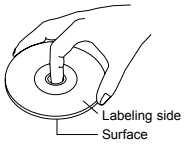
Compatibility of PC created discs

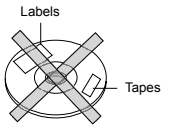
When recording a disc with a PC, even if it is recorded in a compatible format as listed above, there may be cases in which the disc cannot be played in this device due to the application software setting used to create the disc. In this case, please contact the software publisher for more detailed information.

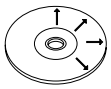
Note: Don't load any exceptional discs in the unit, as this will cause null playback or other problems (also with copy-protected Audio CDs).

Data transfer rates

The maximum speed for playing CDs is 4x. The corresponding data transfer rate is 600 KB/sec. The maximum speed for playing DVDs is 2x with a data transfer rate of 2700 KB/sec.







Taking care of recorder and discs

Handling of discs

- Please hold the disc by gripping the rim or by placing the index finger in the central hole. Never touch the signal surface, which is shiny. This applies to both sides of double sided discs.
- Never add labels or adhesive tapes on the discs and do not scratch or damage the discs.

Cleaning of discs

- Finger prints or stains on the surface of the disc can cause signal missing. Depending on the degree of stain, the reflected luminosity from the signal surface may be weakened, resulting in a poorer picture quality. Therefore, please use a soft cloth and wipe in a radiating manner from the centre to the outer rims when cleaning the disc.
- If the surface of your disc is very dirty, please wipe the disc with a moist cloth, finally use a dry soft cloth to remove all the water stains.
- Never use electrostatic prevention products as well as solutions which contain benzene, thinner or any other vaporizing substances, as they may damage the disc surface.

Storage of discs

- To prevent discs from getting bent or deformed, they should be vertically kept in the disc storage case.
- To prevent damages, avoid placing them in a car, which may contact direct sunlight. Also avoid leaving discs in excessively cold or humid environments.
- For more information refer to the instructions that come with discs.

Discs to avoid

Please only use conventional, fully circular discs in this DVD recorder. It is not recommended to use warped, cracked, chipped or otherwise damaged discs in this device.

Disc accessories

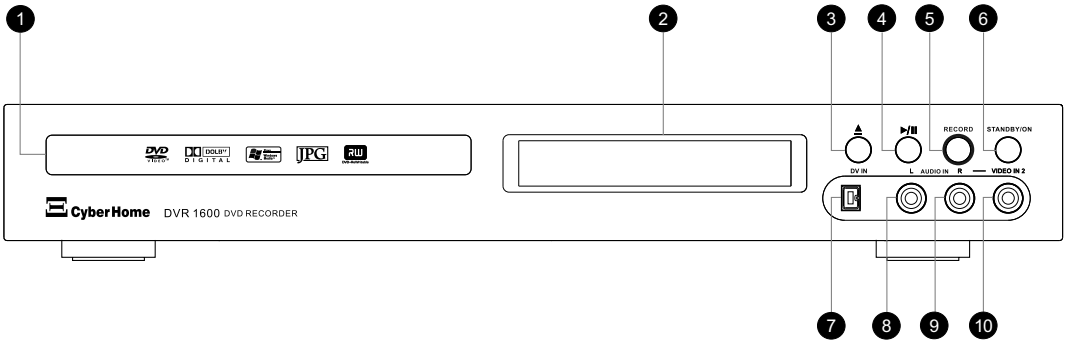
Do not use any disc accessory to improve the audio quality, disc protective solutions or lens cleaner. These products may cause problems.

Cleaning of the DVD recorder

The control panel and the case of the recorder will only require occasional wiping with a soft cloth. Areas with stubborn stains can be cleaned with a soft cloth dipped in a neutral detergent. To prevent damaging the recorder, never use vaporizing solutions.

OPERATION

Operation of control panel



❶ **DISC TRAY:** For inserting discs.

❷ **VFD DISPLAY:** The front Vacuum Fluorescent Display shows information about the unit's operational status.

❸ **⏏ :** Opens or closes the disc tray.

❹ **► / II :** Press this button to start the playback of a disc. During playback, this is used to pause a disc. Press this button again to resume normal playback.

❺ **RECORD:** For recording the current TV channel or external video signals.

❻ **STANDBY/ON:** To switch the device on or off. When switching the device off, you can only go into standby mode. In order to switch the device completely off, please remove the power cord from the device. Please note that the unit consumes a slight amount of power in standby mode.

❼ **DV IN:** i-Link / DV socket (digital video input, IEEE 1394, Fire Wire) for connecting digital camcorders. To select, use the **"SOURCE"** button and select **"DV"**.

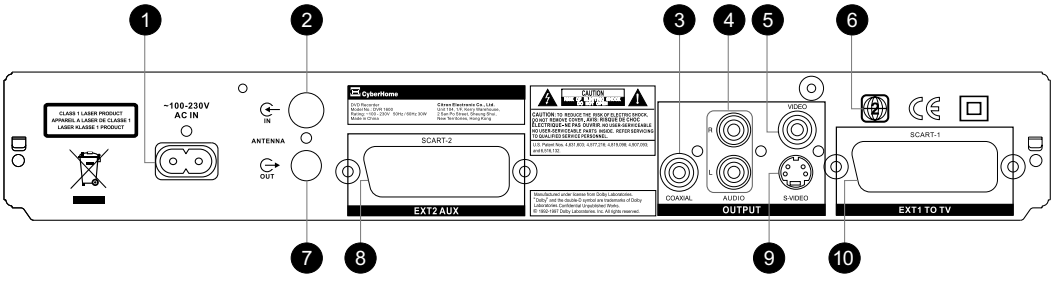
❽ **AUDIO IN L (white):** Left audio input socket for connecting devices with analogue 2 channel audio output, e.g. DVD player, camcorder, video recorder.

❾ **AUDIO IN R (red):** Right audio input socket for connecting devices with analogue 2 channel audio output, e.g. DVD player, camcorder, video recorder.

❿ **VIDEO IN 2 (yellow):** Video input socket for connecting devices with composite video output, e.g. DVD player, camcorder, video recorder. To select, use the **"SOURCE"** button and select **"Video 2"**.

OPERATION

Operation of rear panel



❶ **AC IN 100-230V:** Mains socket for connecting to the mains supply (100-230V) with the power cord. Plug the matching end of the power cord into the unit before connecting the other end to the wall socket.

❷ **ANTENNA IN:** Aerial input for connecting to the aerial.

❸ **COAXIAL OUTPUT:** Digital coaxial audio output for connection to a digital audio device (amplifier/receiver). Please note that the amplifier/receiver has to be compatible to Dolby Digital, MPEG and/or PCM (for more information please refer to the manual of your amplifier/receiver).

❹ **AUDIO R/L OUTPUT:** Analogue 2-channel audio outputs (white/red socket) for connection to a television, AV receiver, beamer or stereo system.

❺ **VIDEO OUTPUT:** Composite video output (yellow socket) for connecting to a TV with a video input (CVBS, composite video) by an audio/video cable.

❻ **REGION CODE:** Indicates that the device is set to DVD region code “2”.

❼ **ANTENNA OUT:** Aerial output for connecting to the TV.

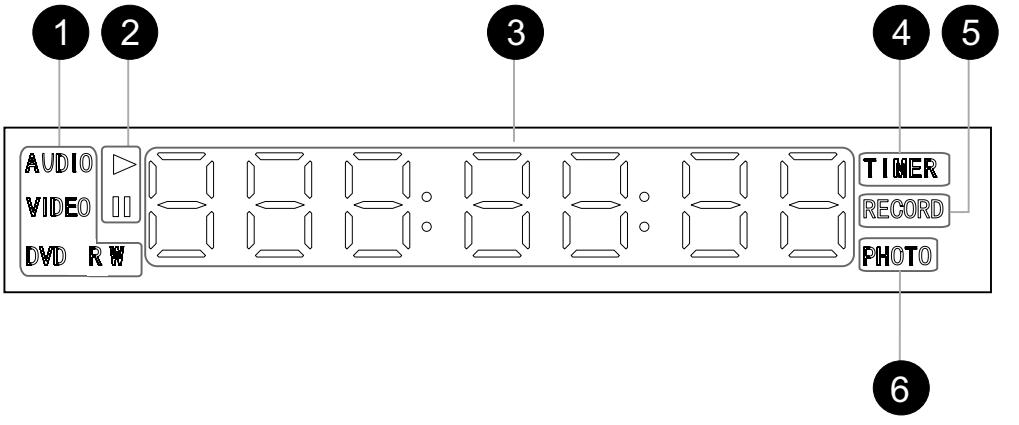
❽ **EXT2 AUX:** SCART socket 2 for connecting additional devices, e.g. DVD player, video recorder, camcorder, satellite receiver, set-top box. To select, use the **“SOURCE”** button and select **“Video 1”** or **“S-Video”**.

❾ **S-VIDEO OUTPUT:** S-Video output for connection to a TV with S-Video input by an S-Video cable. The S-Video output can be used instead of the video output, resulting in a higher video quality than standard composite video.

❿ **EXT1 TO TV:** SCART socket 1 for connecting to the TV.

OPERATION

Operation of VFD display



❶ **DISC TYPE INDICATORS:** Displays the type of the optical disc inserted: Audio CD, Video CD, DVD, DVD+R/RW, DVD-R/RW.

❷ **PLAYBACK STATUS:** Shows the playback status of a DVD, Video CD, Audio CD or other optical disc.
► **:** Currently playing
II : Paused

❸ **MULTI-FUNCTION DISPLAY / TEXT LINE:**
- Indicates the time in standby mode
- Indicates the playback time of the disc, title or track
- Indicates the chapter or track number
- Indicates the programme number of the TV channel
- Display of information, warnings

❹ **TIMER:** Indicates that a recording (timer) has been programmed.

❺ **RECORD:** Indicates that a recording is in progress.

❻ **PHOTO:** Indicates that a Picture CD is inserted.

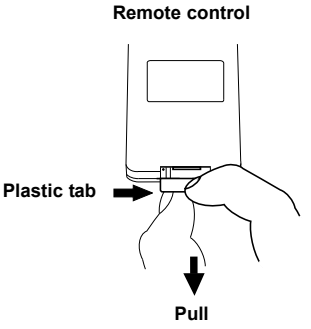
OPERATION

Messages on the display in operation mode

The following messages may appear on the display of your DVD recorder.

HELLO	Indicates that the device is ready to operate.
OFF	Indicates that the device is switched off (standby mode).
OPEN	The disc tray is opening.
CLOSE	The disc tray is closing.
LOAd	The disc is read or a blank disc has been inserted and needs to be formatted.
nO dI SC	No disc has been inserted. If a disc is inserted, it perhaps cannot be read.
StOP	Indicates that the disc is stopped or that a recording has been stopped.
dAtA	Indicates that a data disc has been inserted.
P cd	Indicates that a Kodak Picture CD has been insterted.
Root	This message appears when you are in the menu of the DVD disc.
PBC On	Indicates that PBC is set to **"On"**. Now you are in the menu of a Video CD.
Edit	Indicates that you are in the disc edit menu.
UN disc	Unknown disc. The disc cannot be read.
title	Indicates that you are in the menu of a DVD+R/RW disc (index picture screen).
PROcESS	Indicates that a recording is in process or that you are in the virgin mode.
VIdEO_1	Indicates that the Video 1 input source is selected.
VIdEO_2	Indicates that the Video 2 input source is selected.
S_VIdEO	Indicates that the S-Video input source is selected.
dV	Indicates that the DV input source is selected.
CH 001	Indicates that channel 001 is selected.
InSERt	Indicates that no disc is inserted when a timer recording will start. Please insert a recordable disc.
UPgrAdE	The recorder is updating software from CD.

OPERATION



Operation of remote control

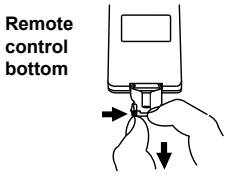
Preparing the remote control

The DVD recorder comes with a remote control. Simply pull out the plastic tab in the remote control to activate the battery. The plastic tab - which covers the battery terminals - extends the life of the battery.

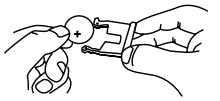
Note: Please note that some models may not include this plastic tab.

Replacing the battery

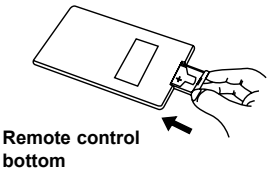
If the remote control only operates when you get closer to the device, it means that the battery has been used up. Please replace the battery with a new Lithium battery (CR2025, 3V). To replace the remote control's battery, the battery holder must be removed. Be sure to take note of the polarity marking on the battery. The " + " side must face the bottom of the remote (the side without any buttons).



1. Use your thumbnail to slide the clip on the battery holder to the right side and pull out the battery holder simultaneously in order to remove the battery compartment.

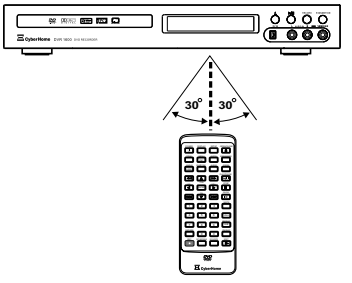


2. Insert a new battery into the battery holder. Make sure that the positive side (marked on the battery as "+") is facing upwards.



3. Reinstall the battery holder into the remote control to complete the battery installation.

OPERATION



Using the remote control

You can use the enclosed wireless remote control to control this device. When using the remote control, please aim at the device's remote control sensor, located on the front of the device. A 30 degree angle is recommended for best operation.

Note:

- Objects between the remote control and the sensor window may prevent proper operation.
- Similar remote controls could interfere with the function of the recorder.
- Make sure not to store the remote control upside down or with any objects pressing on the buttons - this could drain the battery.

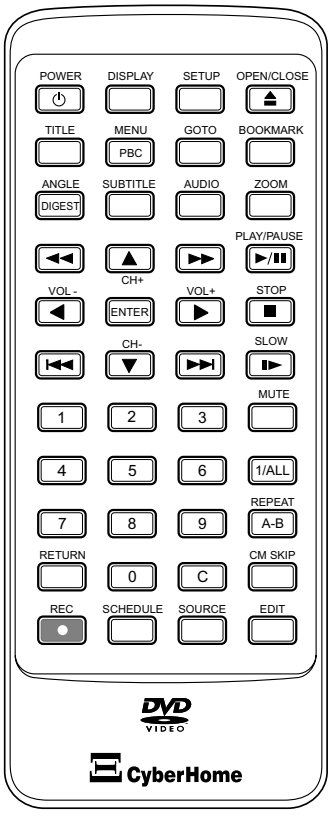
Cautions regarding use of remote control

- Please do not expose the remote control to shock and liquids and do not place it in areas with high humidity. Do not install or place the remote control under direct sunlight, as the heat may cause deformation of the unit.
- When the remote sensor window is exposed to direct sunlight, it may not work properly. If so, please operate the remote control closer to the remote sensor window or change the angle of the lighting or device.

Important notes about the battery

- If the unit is not used for a longer period of time, we recommend you to remove the battery.
- Please do not use batteries other than specified. Improper use of batteries can result in a leakage of chemicals and/or explosion.
- In case of any leakage of the battery, dispose of the battery right away and avoid touching the chemical discharge. Make sure to clean the remote control’s battery compartment before installing a new battery.

OPERATION



Remote control buttons

POWER ⏻ — **Switch on/off:** To switch the device on or off (only standby mode).

DISPLAY — Screen display for indicating the disc and time information. You may also change the settings in the display menu.

SETUP — **Setup menu:** To call up or cancel the setup menu.

OPEN/CLOSE ⏏ — To open or close the disc tray.

TITLE — To access the title screen on DVD+R/RW discs, displaying a graphical representation of the recordings and providing easy navigation.

MENU "PBC" — To enter the menu of DVD discs or to select the PBC function for VCD discs.

GOTO — Used for playing a disc, title, chapter or track from a specific time. Follow with the corresponding number buttons.

BOOKMARK — To store specific portions of the disc in memory and play them immediately whenever you want without the need to search.

ANGLE "DIGEST" — **1. Angle:** Changes the camera angle depending on the disc content (only supported on DVDs).
2. Digest: For entering the thumbnail view mode (only supported on Picture CDs).

SUBTITLE — For DVDs, this can be used to display subtitles and select the language to use.

AUDIO — Interchanges the audio settings depending on the disc content (on DVD and VCD discs).

ZOOM — For zooming in and out of the picture.

◀◀ — **Fast backward:** Fast backward search while playing (2x, 4x, 8x, 16x, 32x). Not possible with JPEG files.

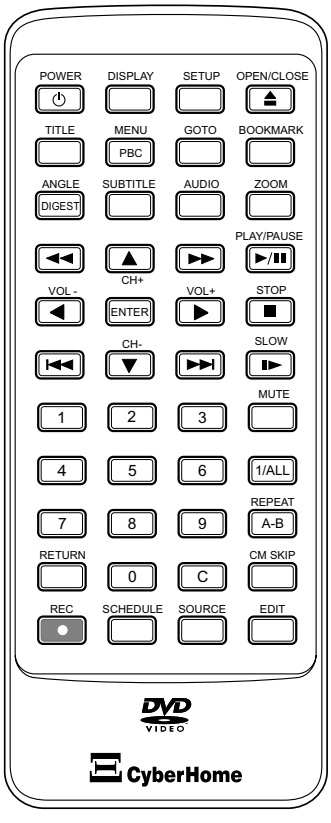
CH+ , ▲ — **1. Next programme number:** Programme number upwards in TV tuner mode.
2. Direction button: Up. Used to navigate disc menus, the on-screen setup menu, etc.

▶▶ — **Fast forward:** Fast forward search while playing (2x, 4x, 8x, 16x, 32x). Not possible with JPEG files.

▶ / II — **Play/Pause:** Press this button to start the playback of a disc. During playback, this is used to pause a disc. Press this button again to resume normal playback.

VOL- , ◀ — **1. Volume down:** Decreases the volume level.
2. Direction button: Left. Used to navigate disc menus, the on-screen setup menu, etc.

OPERATION



ENTER — **Store/Confirm:** To store or confirm the entry.

VOL+ , ▶ — **1. Volume up:** Increases the volume level.
2. Direction button: Right. Used to navigate disc menus, the on-screen setup menu, etc.

■ — **Stop:** Stops the recording / stops the playback, but holds the resume location. Enters Stop mode after pressing the button two times.

⏮ — **Select previous title:** Press this button two times to skip to the previous track, chapter or title. With Picture CDs you only need to press this button once to skip to the previous picture.

CH- , ▼ — **1. Previous programme number:** Programme number downwards in TV tuner mode.
2. Direction button: Down. Used to navigate disc menus, the on-screen setup menu, etc.

⏭ — **Select next title:** Press this button shortly to skip to the next track, chapter, title or picture.

I▶ — **Slow play forward:** Slow forward search while playing (1/2X, 1/4X, 1/8X, 1/16X).

0-9 — **Number buttons:** 0-9. Used to enter numeric values while setting options.

MUTE — To turn off the sound. Press again to turn sound on again.

REPEAT "1/ALL" — Repeats an entire disc, track, chapter, title or picture.

REPEAT "A-B" — Repeats the sequence stipulated by two selected playback points. Not possible with JPEG files.

RETURN — For returning to the previous menu.

C — **Clear:** For deleting the last entry.

CM SKIP — Jumps forward 30 seconds during playback. On the other hand, press this button to pause 30 seconds during recording.

REC ● — **Record:** For recording the current TV channel or external video signals.

SCHEDULE — Accesses the timer menu for scheduled recording setup.

SOURCE — For selecting the required video input source. The following sources are available: DVD (DVD recorder), DV, Video 2, Tuner, S-Video and Video 1. For more details, please refer to page 52.

EDIT — **Edit menu:** Displays the edit menu for DVD+R(W) discs.

CONNECTING THE DVD RECORDER

Connecting the DVD recorder to the TV

For that your DVD recorder can record and play back a TV broadcast, the necessary cable connections have to be made first. Connect the DVD recorder directly to the TV. If you connect the DVD recorder through the video recorder to the TV, there will be the Macrovision copyright protection.

When installing your DVD recorder for the first time, please choose from the following possibilities:

Connection with SCART cable - Audio and video connection which enables an optimal picture quality. This connection possibility requires a SCART cable (not included in your accessory).

Connection with video cable - The most widely used connection. An audio/video cable for composite video is required (not included in your accessory).

Connection with S-Video cable - A higher quality connection that requires a special S-Video cable (not included in your accessory) and a S-Video capable TV.

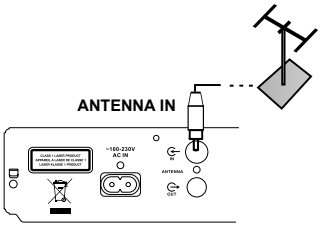
In detail:

Connection with SCART cable

If your TV has a SCART socket, you can optionally connect your DVD recorder with the TV over the SCART socket. The advantage is here an optimal picture quality.

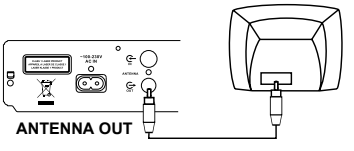
Have the following cables ready:

1. Two aerial cables (not supplied)
2. Power cord (supplied)
3. SCART cable (not supplied)



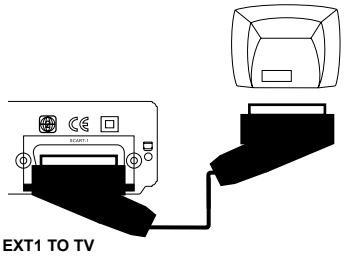
❶ Connect your antenna/cable TV outlet to the **"ANTENNA IN"** socket at the back side of your DVD recorder using an aerial cable.

Note:
If your TV is already connected to the antenna/cable TV outlet, remove the aerial cable plug from your TV and insert it into the **"ANTENNA IN"** socket at the back side of your DVD recorder.



❷ Insert one end of a second aerial cable into the **"ANTENNA OUT"** socket at the back of your DVD recorder and the other end into the aerial input socket of your TV.

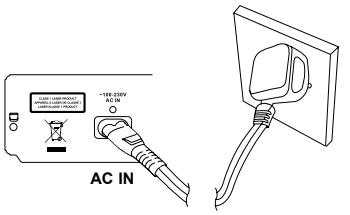
CONNECTING THE DVD RECORDER



❸ Plug the SCART cable into the SCART socket **"EXT1 TO TV" (SCART-1)** at the back of the DVD recorder and into the corresponding SCART socket of your TV (please refer to the user's manual of your TV).

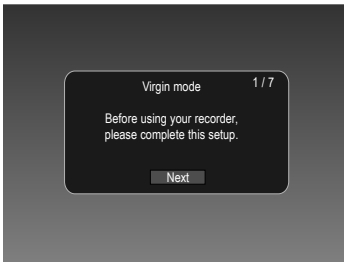
Tips:
- If your TV has several SCART sockets, please use the SCART socket that is suitable for the video output and the video input.
- If your TV offers a menu to choose the SCART socket, please select "VCR" as the connection source of this SCART socket.

❹ Turn on the TV.



❺ Connect the supplied AC power cord to the **"AC IN"** socket on the back side of the DVD recorder, then plug into a power outlet.

❻ Turn the unit on with the **"POWER"** button on your remote control or the **"STANDBY/ON"** button on the front panel of the DVD recorder. **"HELLO"** appears in the display.



❼ If the connection was properly made and your TV was automatically switched to the programme number for the SCART socket, e.g. "EXT", "0", "AV", the picture shown on the left side appears.

Problem:
Your screen is empty:
- Many TVs are switched by the DVD recorder to the programme number for the SCART socket by way of a control signal sent through the SCART cable. If the TV does not automatically switch to the SCART socket programme number, manually change to the corresponding programme number on your TV (please refer to the user's manual of your TV).
- Check that the SCART cable is connected from the TV to the **"EXT1 TO TV" (SCART-1)** socket on the DVD recorder. The socket **"EXT2 AUX" (SCART-2)** is intended only for additional devices.

Then, read section **"Initial installation"** in chapter **"Installing your DVD recorder"** (see pages 26-27).

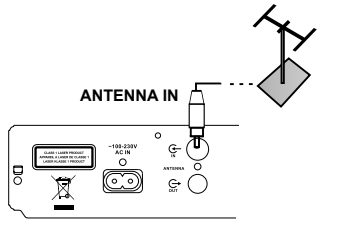
CONNECTING THE DVD RECORDER

Connection with video cable

If your TV has only a single video input jack, typically a yellow-coloured plug, you will use the composite video output of your DVD recorder for the video connection. For the audio connection you can use the red and white stereo audio in connectors of your TV. The brightness and colour signals are transferred over the same wire.

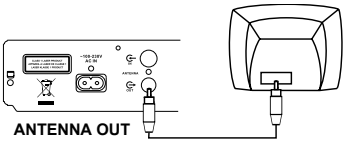
Have the following cables ready:

1. Two aerial cables (not supplied)
2. Power cord (supplied)
3. Audio/video cable (not supplied; yellow, red and white plug)

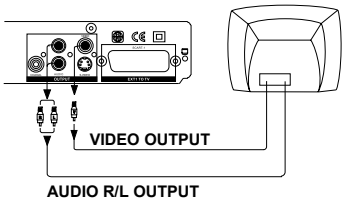


❶ Connect your antenna/cable TV outlet to the **"ANTENNA IN"** socket at the back side of your DVD recorder using an aerial cable.

Note:
If your TV is already connected to the antenna/cable TV outlet, remove the aerial cable plug from your TV and insert it into the **"ANTENNA IN"** socket at the back side of your DVD recorder.



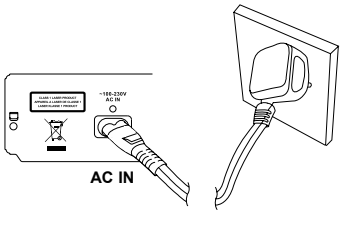
❷ Insert one end of a second aerial cable into the **"ANTENNA OUT"** socket at the back of your DVD recorder and the other end into the aerial input socket of your TV.



❸ Insert one yellow end of the audio/video cable into the yellow cinch socket **"VIDEO"** on the back side of the DVD recorder and the other end in the (usually yellow) video input socket of the TV (usually labelled "Video in", "AV in". Please refer to the TV's user manual).

❹ Insert the red and white end of the audio/video cable into the red and white cinch socket **"AUDIO R/L"** on the back side of the DVD recorder and the other end in the (usually red and white) audio input socket of the TV (usually labelled "Audio in", "AV in". Please refer to the TV's user manual).

❺ Turn on the TV. Then, switch the TV over to the video input socket or select the relevant channel number. You can find the channel number information in the user manual of your TV.



❻ Connect the supplied AC power cord to the **"AC IN"** socket on the back side of the DVD recorder, then plug the other end into a power outlet.

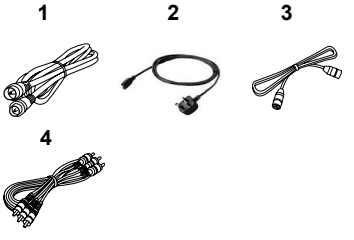
CONNECTING THE DVD RECORDER

❼ Turn the unit on with the **"POWER"** button on your remote control or the **"STANDBY/ON"** button on the front panel of the DVD recorder. **"HELLO"** appears in the display.

Then, read section **"Initial installation"** in chapter **"Installing your DVD recorder"** (see pages 26-27).

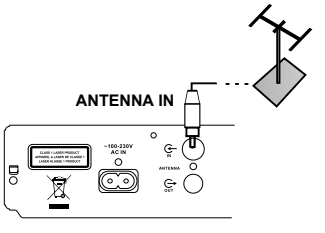
Connection with S-Video cable

If your TV has a S-Video input, it is recommended that you use this video connection. The S-Video connector is distinguishable by its 4 pins. S-Video separates brightness and colour signals, resulting in a higher video quality than standard composite video. For the audio connection you can use the red and white stereo audio in connectors of your TV.



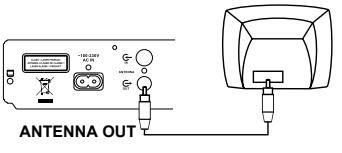
Have the following cables ready:

1. Two aerial cables (not supplied)
2. Power cord (supplied)
3. S-Video cable (not supplied)
4. Audio/video cable - red and white plug (not supplied)

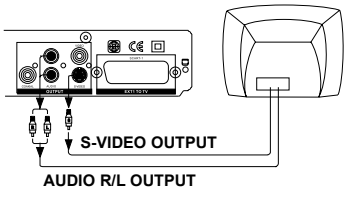


❶ Connect your antenna/cable TV outlet to the **"ANTENNA IN"** socket at the back side of your DVD recorder using an aerial cable.

Note:
If your TV is already connected to the antenna/cable TV outlet, remove the aerial cable plug from your TV and insert it into the **"ANTENNA IN"** socket at the back side of your DVD recorder.



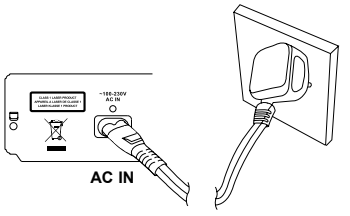
❷ Insert one end of a second aerial cable into the **"ANTENNA OUT"** socket at the back of your DVD recorder and the other end into the aerial input socket of your TV.



❸ Insert one end of the S-Video cable into the socket **"S-VIDEO"** on the back side of the DVD recorder and the other end in the S-Video input socket of the TV (usually labelled "S-Video in", "SVHS in". Please refer to the TV's user manual).

❹ Insert the red and white end of the audio/video cable into the red and white cinch socket **"AUDIO R/L"** on the back side of the DVD recorder and the other end in the (usually red and white) audio input socket of the TV (usually labelled "Audio in", "AV in". Please refer to the TV's user manual).

CONNECTING THE DVD RECORDER



❺ Turn on the TV. Then, switch the TV over to the SVHS input socket or select the relevant channel number. You can find the channel number information in the user manual of your TV.

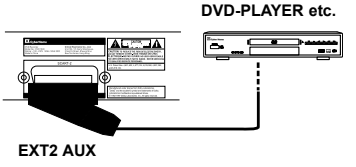
❻ Connect the supplied AC power cord to the **“AC IN”** socket on the back side of the DVD recorder, then plug the other end into a power outlet.

❼ Turn the unit on with the **“POWER”** button on your remote control or the **“STANDBY/ON”** button on the front panel of the DVD recorder. **“HELLO”** appears in the display.

Then, read section **“Initial installation”** in chapter **“Installing your DVD recorder”** (see pages 26-27).

CONNECTING ADDITIONAL DEVICES

❶ Connecting additional devices to the second SCART socket



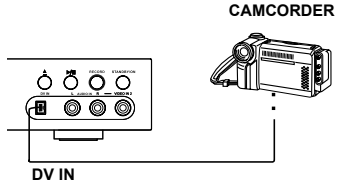
You can connect additional devices such as decoders, satellite receivers, DVB-T set-top boxes, DVD players, video recorders etc. to the **"EXT2 AUX" (SCART-2)** socket. When playback on these additional devices is started, the DVD recorder automatically connects the **"EXT2 AUX" (SCART-2)** socket with the **"EXT1 TO TV" (SCART-1)** socket. You will then see the picture from the additional device on your TV.

Attention:
In order to see the picture from the additional device on your TV, you need to select the video input source **"Video 1"** or **"S-Video"** by pressing the button **"SOURCE"** on your remote control. If the picture is black and white, please switch the input source from SCART **"Video 1"** to SCART **"S-Video"**.

Note:
Most pre-recorded video cassettes and DVDs are copy-protected. You cannot copy them.

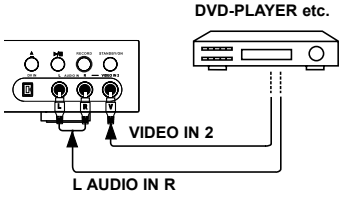
❷ Connecting additional devices to the front sockets

Video input sockets for connecting devices with composite video output or DV output, e.g. DVD player, video recorder, camcorder (video input source **"Video 2"** or **"DV"**). For easy copying camcorder recordings, please use the front sockets. These sockets are located on the right side of the front panel.



Best picture quality

If you have a DV / Digital 8 camcorder, connect the **"DV IN"** input of the DVD recorder to the appropriate DV output on the camcorder. Use the button **"SOURCE"** for selecting the video input source **"DV"**.



Good picture quality

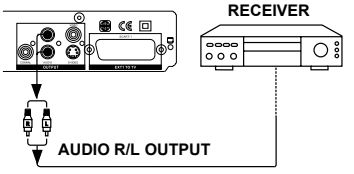
If you have a camcorder, DVD player, video recorder etc. that has a single video output (composite video, CVBS), connect the **"VIDEO IN 2"** input of the DVD recorder to the appropriate video output on the camcorder, DVD player or video recorder. You must also connect the audio input **"L AUDIO IN R"** on the DVD recorder to the audio output on the camcorder, DVD player or video recorder. Use the button **"SOURCE"** for selecting the video input source **"Video 2"**.

CONNECTING ADDITIONAL DEVICES

❸ Connecting audio devices to the analogue audio sockets

Two analogue audio output sockets **"AUDIO R/L"** are located at the back of the DVD recorder.

These can be used to connect the following:
- **A receiver with Dolby Surround Pro Logic**
- **A receiver with two channel analogue stereo**



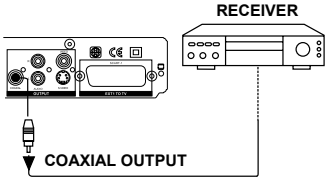
Connect the stereo audio outputs of your DVD recorder with the corresponding inputs on your receiver. Please use the red and white connectors on the audio/video cable (not included in your accessory).

❹ Connecting audio devices to the digital audio socket

At the back of the DVD recorder, there is a digital audio output socket **"COAXIAL"** for a coaxial cable.

This can be used to connect the following:
- **An A/V receiver or an A/V amplifier with a digital multi-channel sound decoder (MPEG 2, Dolby Digital)**
- **A receiver with two channel digital stereo (PCM)**

What is digital multi-channel sound?
Digital multi-channel sound offers you a maximum of sound quality. You need a multi-channel A/V receiver or amplifier that supports at least one of the audio formats of the DVD recorder (MPEG 2, Dolby Digital). For the formats that your receiver supports, refer to the manual of the receiver.



Connect the coaxial digital output of the DVD recorder with the corresponding input on the AV receiver by means of a coaxial cable (not included in your accessory).

A loud distorted noise comes from your loudspeakers:
In this case the receiver is not suitable for the digital audio format of the DVD recorder. The audio format of the inserted DVD will be shown on the TV screen when switching to another language by pressing the **"AUDIO"** button. Playback with 6 channel digital surround sound is only possible, if the receiver has a digital multi-channel sound decoder.

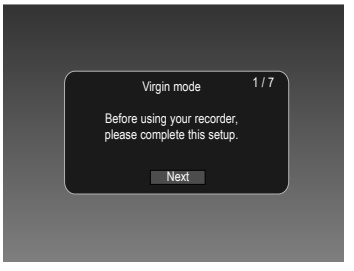
INSTALLING YOUR DVD RECORDER

Initial installation

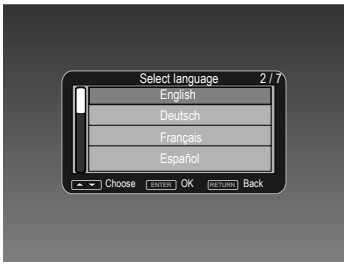
After successfully connecting your DVD recorder to your TV and other additional devices as described in the previous chapters, this chapter will show you how to process the initial installation. The DVD recorder automatically seeks out and stores all available TV channels.

Tips:

- **Switching on additional devices:** If you have connected additional devices such as a satellite receiver to the aerial cable, switch them on. The automatic channel search will recognise them and save them.
- **No aerial connected:** Even if you only want to use the DVD recorder to play back or have only connected a satellite receiver, you must still complete the initial installation. This is necessary so that the basic settings are stored correctly. Once the initial installation is completed you can use the DVD recorder normally.



❶ The initial installation menu will be displayed on the screen. A message will appear asking you to complete the initial setup (see illustration on the left). On the VFD display appears **"PROCESS"**. Please press the button **"ENTER"** on your remote control to start the initial installation.

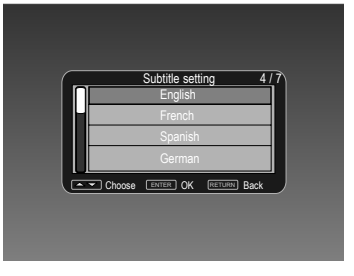


❷ Select the desired language for the on-screen menu by pressing the direction button **"▲"** or **"▼"** on the remote control. Confirm with the button **"ENTER"**.

What is an on-screen menu?
This DVD recorder has a multi-language on-screen menu. All settings respectively functions will be displayed in the corresponding language on the screen of your TV set.

❸ Select your country by pressing the direction button **"▲"** or **"▼"** on the remote control. Confirm with the button **"ENTER"**.

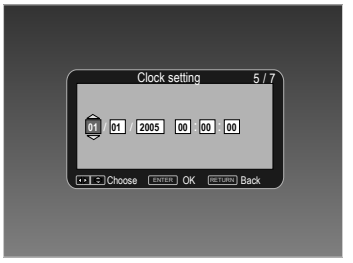
Why do I have to set the country?
To call up the specific settings for the respective country, you must first enter the country.



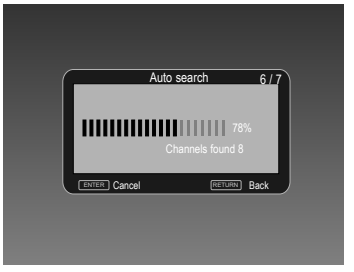
❹ Select the desired subtitle language by pressing the direction button **"▲"** or **"▼"** on the remote control. Confirm with the button **"ENTER"**.

What is the subtitle language?
The subtitles will be displayed in the language you select, provided this language is available on the disc. If this language is not available on the disc, the first language on the DVD will be used instead.

INSTALLING YOUR DVD RECORDER



❺ Check if the time and the date in the page **"Clock setting"** is correct. If required, change the displayed settings by pressing the button **"▲"** or **"▼"** to increase or decrease the value of the field. You can also use the number buttons **"0-9"** instead of the direction keys. Select the next input field by pressing the button **"◄"** or **"►"** on the remote control. If your settings are correct, please press **"ENTER"** to confirm.

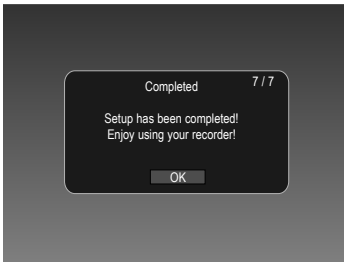


❻ The automatic TV channel search progress bar appears and the DVD recorder scans for available channels. This may take some minutes. Please wait.

Problem:

The DVD recorder cannot find any TV channels while searching:

- Select channel 1 on the TV set. Can you see the stored TV channel on the TV set? If not, check the cable connection from the aerial (aerial socket) to the DVD recorder and to the TV set.
- Please have patience! The DVD recorder searches the entire frequency range in order to find and store the largest possible number of available TV channels. It is possible that the TV channels in your country are broadcast in a higher frequency range. As soon as this range is reached during the search, the DVD recorder will find the TV channels.
- If no aerial is connected, cancel the automatic search by pressing **"ENTER"** and then, if desired, start the automatic channel search (see **"Automatic TV channel search"** on page 29) at a later date.



❼ When the automatic TV channel search is completed, a message will be displayed informing you that the setup has been completed! Then press **"ENTER"** to finish initial installation.

Problem:

Sound may be distorted on some TV channels:

If the sound is distorted on any of the stored TV channels or if there is no sound at all, the wrong TV system may have been stored for the TV channel. Read in section **"Manual TV channel search"** on page 28 how to change the TV system.

Using a satellite receiver/DVB-T set-top box

TV channels from a satellite receiver or DVB-T set-top box (connected to the second SCART socket **"EXT2 AUX"**) are received on the DVD recorder on the input source **"Video 1"** or **"S-Video"**. Select the required input source with the button **"SOURCE"** on the remote control.

You have to select the TV channels to be received by the satellite receiver or DVB-T set-top box directly on the receiver/set-top box itself.

Manual TV channel search

In some cases, not all of the available TV channels may have been found and stored during initial installation/automatic channel search. You will need to search for and store the missing TV channels manually in this case.

❶ Turn on the TV and select the programme number for the DVD recorder if required.

❷ Turn on the DVD recorder with the **"POWER"** button on the remote control or the **"STANDBY/ON"** button on the front panel of the DVD recorder.

Note:
First you have to select the input source **"Tuner"** by pressing the **"SOURCE"** button or the buttons **"◄"** and **"►"** on your remote control. Confirm with **"ENTER"**.

❸ Press the **"SETUP"** button on the remote control. The setup menu appears.

❹ Select the **"General"** setup page by pressing the direction button **"▼"** and press **"ENTER"** to enter this page.

❺ Select **"Manual search"** with the button **"▼"** on your remote control and confirm your selection by pressing **"ENTER"**. The menu will be opened.

❻ Highlight the input field **"PR"** with the direction button **"▲"** or **"▼"** on your remote control and use the number buttons **"0-9"** to select the programme number that you want to use for the TV channel, e.g. **"03".**

❼ Navigate down to the field **"CH"** (Channel) or **"S-CH"** (Special channel) with the button **"▼"** and insert the channel number of the required TV station with the number buttons **"0-9"** or the buttons **"◄"** and **"►"** on your remote control.

Notes:
- It is only possible to enter either a channel **("CH")** or a special channel **("S-CH")**.
- In case the selected channel is deleted from the channel list (see section **"Deleting and adding TV channels"** on page 31), the checkmark next to the field "Skip" is activated, indicating that the channel is skipped when changing channels.

❽ If you do not know the channel number of your TV station, you may also enter the frequency. To do so, highlight the frequency bar by pressing the button **"▼"** on your remote control. Using the buttons **"◄"** and **"►"** you can change the channel frequency. The channel number will change according to the selected frequency (and vice versa).

Tips:
Changing the TV system of a TV channel:
Use the direction button **"◄"** or **"►"** to select in menu point **"TV system"** the TV system that produces the least distortion of picture and sound. You can choose between **"PAL-BG", "PAL-I", "PAL-DK", "Secam-L", "Secam-BG"** and **"Secam-DK"**.

❾ When the manual channel search is completed, press **"ENTER"** to store the TV channel.

❿ To search for other TV channels, repeat from step ❺.

⓫ To end, press the **"SETUP"** button.

Automatic TV channel search

During initial installation, all available TV channels are automatically searched for and stored. If the channel assignments of your cable or satellite TV provider change or if you are reinstalling the DVD recorder, e.g. after moving to another house, you can start this procedure again. This will replace the stored TV channels with the new ones.

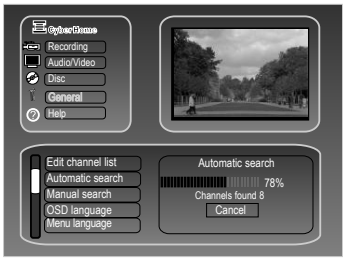
❶ Turn on the TV and select the programme number for the DVD recorder, if required.

❷ Turn on the DVD recorder with the **"POWER"** button on the remote control or the **"STANDBY/ON"** button on the front panel of the DVD recorder.

Note:
First you have to select the input source **"Tuner"** by pressing the **"SOURCE"** button or the buttons **"◄"** and **"►"** on your remote control. Confirm with **"ENTER"**.

❸ Press the **"SETUP"** button on the remote control. The setup menu appears.

❹ Select the **"General"** setup page by pressing the direction buttons and press **"ENTER"** to enter this page.



❺ Select **"Automatic search"** with the button **"▼"** on your remote control and confirm your selection by pressing **"ENTER"**.

❻ The automatic TV channel search starts. The DVD recorder stores all available TV channels. This may take some minutes.

❼ When the automatic TV channel search is completed, press the **"SETUP"** button to end.

Sorting, adding, deleting and renaming TV channels

After you have performed the automatic channel search, you may not agree with the sequence in which the individual TV channels have been assigned to the programme positions. You can use this function to rearrange the TV channels already stored or to delete TV channels you don't want or those with poor reception. You may also change the name of a TV station.

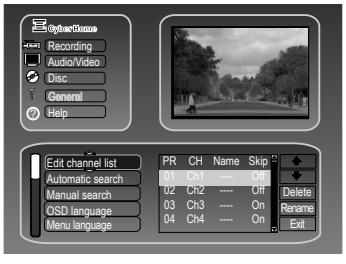
❶ Turn on the TV and select the programme number for the DVD recorder, if required.

HELLO

❷ Turn the DVD recorder on with the **"POWER"** button on your remote control or the **"STANDBY/ON"** button on the front panel of the DVD recorder. **"HELLO"** appears in the display.

❸ Press the **"SETUP"** button on the remote control. The setup menu appears.

❹ Select the **"General"** setup page by pressing the direction buttons and press **"ENTER"** to enter this page.



❺ Select the **"Edit channel list"** option and confirm your selection with the button **"ENTER"**.

❻ A scrollable channel list is displayed (see illustration on the left side). Using the direction button **"▲"** or **"▼"** you can select the TV channel that you want to delete, rename or whose order you want to change. To leave the **"Edit channel list"** option, please navigate to the field **"Exit"** and press the button **"ENTER"** on your remote control.

Sorting TV channels:

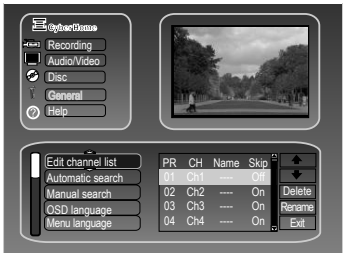
❶ If you want to change the position of a current TV channel, please highlight the required TV channel by pressing the direction buttons on your remote control.

❷ Please navigate to the field **"⇧"** for moving the current TV channel upwards and press **"ENTER"** to confirm. This will exchange the selected TV channel with the previous TV channel in the list. Ignore this function, if the selected TV channel is the first one.

❸ Navigate to the field **"⇩"** for moving the current TV channel downwards and press **"ENTER"** to confirm. This will exchange the selected TV channel with the next TV channel in the list. Ignore this function, if the selected TV channel is the last one.

Tip:
Press the **"ENTER"** button several times, if you want to exchange for example channel 2 with channel 7.

INSTALLING YOUR DVD RECORDER



Deleting and adding TV channels:

❶ Unwanted channels or those with poor reception can be deleted by selecting the field **"Delete"** with the direction buttons. Confirm your selection by pressing the button **"ENTER"** on your remote control.

❷ The unwanted TV channel is deleted from the TV channel list and the **"Skip"** field will change from **"Off"** to **"On"**.

❸ If you want to add the TV channel again to your TV channel list later on, move to the **"Add"** field and press **"ENTER"**. The **"Skip"** field will change now from **"On"** to **"Off"**.

Renaming TV channels:

❶ If you want to change the name of a TV channel, please highlight the field **"Rename"** with the direction buttons and confirm your selection by pressing the button **"ENTER"** on your remote control. A virtual keyboard appears on the screen.

❷ First, press the button **"C"** repeatedly or select the field **"Backspace"** to delete the current TV channel name.

❸ Then use the direction buttons **"◀", "▶", "▲"** or **"▼"** to select the letter you require and press the button **"ENTER"** on your remote control to confirm your selection.

Tips:

- If you want to insert small letters, please navigate to the field **"a"** and press **"ENTER"** to confirm. The virtual keyboard will now display only small letters. If you want to insert only capital letters, please highlight the field **"A"** and confirm with the **"ENTER"** button. You can also insert icons e. g. a colon. For this, please navigate to the field **"$"** and press the button **"ENTER"** on your remote control to confirm your selection. The virtual keyboard will now display icons.
- If you want to add an empty space, please navigate to the field **"Space"** and press **"ENTER"**.
- If you want to delete an empty space or a letter, please select **"Backspace"** or press **"C"** on your remote control.

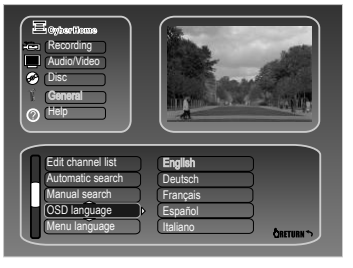
❹ If you want to confirm the new TV channel name, please highlight the field **"Enter"** and press the button **"ENTER"** on your remote control. The new TV channel name is stored.

❺ If you do not want to save the new TV channel name, please highlight the field **"Cancel"** and press the button **"ENTER"** on your remote control. The virtual keyboard will disappear and the previous TV channel name retains on the TV screen.

Setting the language

You can select for DVD playback the language for the subtitles as well as the audio language. Please note that with some DVDs you can change the audio language and/or subtitle language only via the DVD disc menu.

Moreover, you can set the language for the on-screen menu (OSD). However, the DVD recorder display will only display English text regardless of this setting.



❶ Turn on the TV and select the programme number for the DVD recorder, if required.

❷ Turn on the DVD recorder. Press the **"SETUP"** button on the remote control. The setup menu appears.

❸ Select the **"General"** setup page by pressing the direction button **"▼"** and press **"ENTER"** to enter this page.

❹ Navigate down to the **"OSD language"** option. You may also set the **"Menu language"**, **"Audio language"** (language of playback) and **"Subtitle language"**, if a DVD is inserted.

❺ Press **"ENTER"** to enter the appropriate menu point.

❻ Select the required language by pressing the direction button **"▲"** or **"▼"** and confirm with the button **"ENTER"**.

❼ To end, press the **"SETUP"** button.

Setting the date and time

If the display shows an incorrect time, the time and date have to be set manually.

❶ Press the **"SETUP"** button on the remote control. The setup menu appears.

❷ Select the **"General"** setup page and press **"ENTER"** to enter this page.

❸ Use the button **"▼"** to navigate down to the **"Clock setting"** option and confirm your selection with the button **"ENTER".**

❹ Check if the time and date is correct. If required, change the displayed settings for day, month, year, hour, minute and second by pressing the direction button **"▲"** or **"▼"** or by using the number buttons **"0-9"**. Select the next input field by pressing the button **"◄"** or **"►"** on the remote control.

❺ When now all information are correct, press the button **"ENTER"** on your remote control.

❻ To end, press the **"SETUP"** button.

PLAYBACK

General playback hints

This DVD recorder will play the following discs:

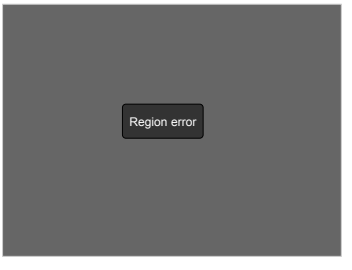
- DVD-Video
- Video CD
- Super Video CD
- DVD+RW
- DVD+R
- DVD-RW (video mode, finalized)
- DVD-R
- CD-R
- CD-RW
- Audio CD
- MP3, JPEG, MPEG, WMA files
- Kodak Picture CD

You can operate the DVD recorder using the remote control or the buttons on the front panel of the DVD recorder.

Problems:

"⊘" will be displayed on the screen:

Some DVD discs can be manufactured so that certain steps are required before the disc can be played, or so that only limited operation is possible during playback. When an **"⊘"** appears on the screen, the selected feature is not possible.



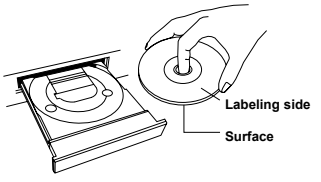
The screen is showing "Region error":

- Since DVD films are normally not released in all parts of the world at the same time, all DVD recorders have a specific region code. Discs can be given an optional region code. If the region codes differ between the recorder and the disc, playback is not possible.
- You can find the region code on the back of the device.
- The region code does not apply to recordable DVD discs.

PLAYBACK

Inserting a disc

OPEN



❶ Press the Open/Close button **"⏏"** on the front of the device or on the remote control to open the tray. The display shows **"OPEN".**

❷ Carefully place the disc in the tray with the label facing up. Be careful not to touch the playing surface. Hold the disc by the sides and with your fore finger through the hold in the middle and insert gently into the tray.

How to insert a double-sided DVD?
Double-sided discs do not have labelling over the whole surface. The labelling for each side is in the centre of the disc. To play a side its label must be facing up.

CLOSE

LOAd

❸ Press the Open/Close button **"⏏"** on the front of the device or on the remote control to close the tray. The display shows **"CLOSE"** and then **"LOAD"**. The information on the disc is read.

❹ The inserted disc type is indicated on the screen. If the disc supports the Auto Play function, playback will begin automatically.

Playing a DVD-Video disc

❶ If playback does not start automatically, press the Play/Pause button **"►/II"** on the remote control or on the front of the DVD recorder. In the display will appear the chapter and time elapsed.

STOP

❷ To stop the disc, press the Stop button **"■"** on the remote control. On the VFD display appears **"STOP"**.

❸ To eject the disc, press the Open/Close button **"⏏"** on the remote control or on the front of the device.

DVD menu:
When playing a DVD, a menu may appear. If the titles and chapters are numbered, press a number button on the remote control. You can also use the direction buttons **"◄", "►", "▲"** and **"▼"** to select a menu item and confirm with the button **"ENTER"**.
You can also access the menu using the button **"MENU"** on the remote control.

PLAYBACK

Playing a DVD+R/RW or DVD-R/RW disc

❶ If playback does not start automatically, select the title you want to play from the index picture screen using the direction button **"▲"** or **"▼".**

❷ Press the Play/Pause button **"►/II"** or the button **"ENTER"** to start the playback. In the display will appear the chapter number and the elapsed time.

❸ During playback press the button **"TITLE"** or **"MENU"** to return to the index picture screen.

❹ To stop the disc, press the Stop button **"■"** on the remote control.

Additional playing functions:
- With the button **"I◄◄"** or **"►►I"** you can select the previous or next chapter within a title while playing.
- You can also use the repeat functions. For this, please use the buttons **"REPEAT A-B"** and **"REPEAT 1/ALL"**.

❺ To eject the disc, press the Open/Close button **"≜"** on the remote control or on the front of the device.

Playing a (Super) Video CD

(Super) Video CDs may be equipped with PBC (Playback Control). This means that special playback functions (menus) can be selected directly. The Video CD must be PBC-compatible (see CD packaging).

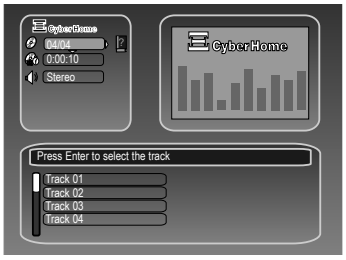
❶ Insert a (Super) Video CD. If playback does not start automatically, press the Play/Pause button **"►/II"** on the remote control or on the front of the DVD recorder.

❷ If a menu appears on the screen, use the number buttons **"0-9"** to select the menu option you want. If the PBC menu contains a title list, the desired title can be chosen directly.

❸ Stop playback using the Stop button **"■".**

Additional playing functions:
- With the button **"I◄◄"** or **"►►I"** you can select the previous or next track.
- When playing a (Super) Video CD, you can also use the repeat functions. For this, please use the buttons **"REPEAT A-B"** and **"REPEAT 1/ALL"**. Please note that the PBC function has to be disabled when using this function.

PLAYBACK



Playing an Audio CD

You can also use your DVD recorder to play Audio CDs.

❶ Insert an Audio CD. Playback starts usually automatically. If playback does not start automatically, press the Play/Pause button **"►/II"** on the remote control or on the front of the DVD recorder.

Note for Audio CD display:
If the TV is on, press the button **"DISPLAY"** on your remote control to display the Audio CD screen (see illustration on the left side). For more information, please refer to page 46.

❷ Stop playback using the Stop button **"■".**

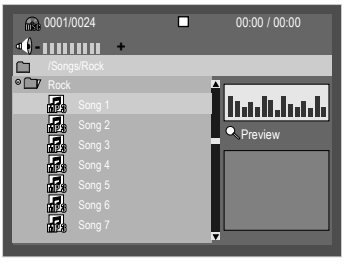
Additional playing functions:
- With the button **"I◄◄"** or **"►►I"** you can select the previous or next track.
- When playing an Audio CD, you can also use the repeat functions. For this, please use the buttons **"REPEAT A-B"** and **"REPEAT 1/ALL".**

Attention:
When playing a copy-protected Audio CD, your recorder may produce some mistakes (e.g. when displaying the time) due to the copy protection. This is no fault of your DVD recorder.

Playing an MP3 disc

MP3 (MPEG1 Audio Layer-3) files are highly compressed music files. Using this technology the data volume can be compressed by a factor of 10. This means it is possible to record 10 hours music in CD quality on a single CD-ROM.

When creating MP3 CDs, please note the following:
- File system: ISO9660, Joliet
- Formats: *.mp3
- File names: maximum 64 ASCII characters (Joliet)
- Support of all standard bitrates



❶ Insert an MP3 disc. If playback does not start automatically, select the required folder using the direction button **"▲"** or **"▼"** and press **"ENTER"** to confirm your selection. Select now the track you want to play.

Note:
To return to the folder selection, please select **"⊙🗀"** and press **"ENTER"** to confirm. Now you can choose another folder.

Note for MP3 CD display:
If the TV is on, the MP3 CD screen appears automatically (see illustration on the left side). The selected track will be highlighted.

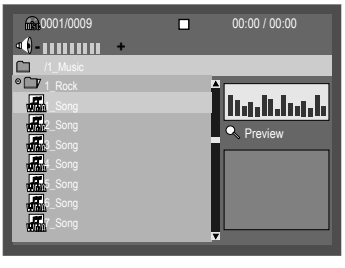
❷ Press the Play/Pause button **"►/II"** or the button **"ENTER"** to start the playback.

❸ Stop playback using the Stop button **"■".**

Additional playing functions:
- With the button **"I◀◀"** or **"▶▶I"** you can select the previous or next track.
- You can also use the number buttons **"0-9"** on the remote control to select tracks.
- When playing an MP3 disc, you can also use the repeat functions. For this, please use the buttons **"REPEAT A-B"** and **"REPEAT 1/ALL"**.

Playing a WMA CD

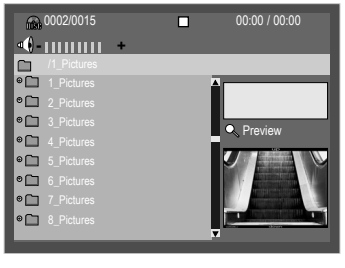
WMA = Windows Media Audio. A streaming media format for audio and video developped by Microsoft.



❶ Insert a WMA CD. If playback does not start automatically, select the required folder using the direction button **"▲"** or **"▼"** and press **"ENTER"** to confirm your selection. Select now the WMA file you want to play. If the TV is on, there will be shown the WMA disc display as shown on the left illustration.

❷ Press the Play/Pause button **"▶/II"** or the button **"ENTER"** to start the playback.

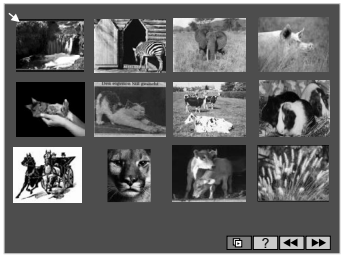
❸ Stop playback using the Stop button **"■"**.



Playing a Picture CD

You can also use your DVD recorder to play Picture CDs, e. g. Kodak Picture CDs or CD-R/RW discs with JPEG files.

❶ Insert a Picture CD and select the required folder using the direction button **"▲"** or **"▼"** and confirm your selection by pressing **"ENTER".** Select now the JPEG file you want to play and press **"ENTER"** to show the picture on the screen. **With Kodak Picture CDs, playback starts directly**.



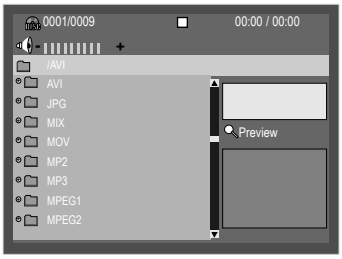
❷ When pressing the Stop button **"■"**, you will enter the thumbnail mode. Here, you may start the slide show **"** **"** and enter the remote key function menu **"** **"** (see lower line).

Note:
When selecting a JPEG picture file, a preview of the picture is shown in the field on the right side.

Additional playing functions:
- With the button **"I◀◀"** or **"▶▶I"** you can select the previous or next picture file.
- During playback, you can use the repeat function. For this, please use the button **"REPEAT 1/ALL"**.

❸ Stop playback using the button **"MENU"**.

PLAYBACK



Playing a mixed format disc

You can also use a mixed format disc in this DVD recorder. Mixed format discs contain both audio and still picture files, e.g. a Picture CD that contains additionally MP3, MPEG and/or WMA files.

❶ Insert a mixed format disc. The recorder will launch an on-screen menu that lets you easily select and play MP3, JPEG, MPEG and WMA files stored on CD-R or CD-RW discs. The menu gives you several options for playback, including repeat modes. MP3 files have to be saved with the extension ".mp3" (e.g. "Song.mp3"), JPEG pictures with the ".jpg" extension, MPEG files with the ".mpeg" extension and WMA files with ".wma".

❷ Select the required folder using the direction button **"▲"** or **"▼"** and press **"ENTER"** to confirm your selection. The files of the corresponding folder will now be shown on the screen. Select now the file you want to play by pressing again the direction keys **"▲"** and **"▼"**. Press then **"ENTER"** or the Play/Pause button **"►/II"** to start playback.

❸ Stop playback using the Stop button **"■"** (with MP3, WMA and MPEG files) or the button **"MENU"** (with JPEG files) on the remote control.

Note:
- To return to the folder selection, please select **"/"** and press **"ENTER"** to confirm. Now you can choose another folder.
- CD-R/RW discs containing MP3, JPEG, MPEG or WMA files should be in ISO 9660, Mode 1, Closed Session format for best compatibility.

PLAYING FUNCTIONS

Selecting a section of the disc to play

If you do not want to play the entire disc, you can select a section to play using one of the following options:

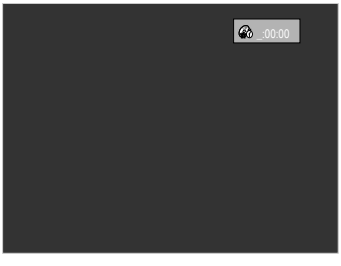
1. Selecting a chapter using the DVD menu

Some DVDs are provided with a menu that, among other options, allows you to select a specific chapter to play.

❶ DVD menus will sometimes be displayed automatically when starting playback. Others only appear when pressing the button **"MENU"** or **"TITLE"** on the remote control. If the disc does not have a menu, the symbol **"⊘"** will be displayed on the screen.

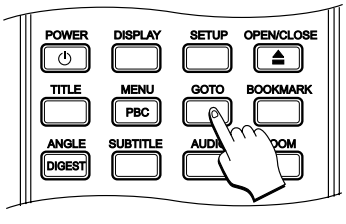
❷ Use the direction buttons to highlight the chapters option in the menu and press **"ENTER"**. The available chapters are displayed.

❸ Use the direction buttons to highlight the chapter that you want to play and press **"ENTER"**. The menu is closed and the chapter is immediately played.



2. Playing from a specific time

This function is available on Audio CDs, DVD-Video discs and (Super) Video CDs. You can jump directly to a specified time. If for example the length of a track is 4 minutes and 37 seconds, you can start playback from the 4th minute so that you only listen to the last 37 seconds.

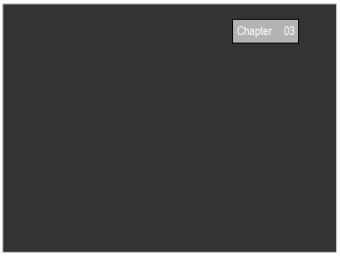


❶ Press the button **"GOTO"** on your remote control.

❷ Use the number buttons **"0-9"** on your remote control to enter the time that you want to move to in the format "h:mm:ss". When you have finished entering the time, the option is closed and the disc, track, title or chapter is played from the time entered.

Note:

- When entering an unavailable number, the number input does not work. You need to enter an available number. To check the available time, please enter the display menu by pressing **"DISPLAY"**.
- To which time you will go when pressing **"GOTO"** depends on the time display you selected in the display menu (e.g. VCD elapsed, Track elapsed, Title remaining, Chapter remaining, etc.). For more information, please refer to pages 44-46.



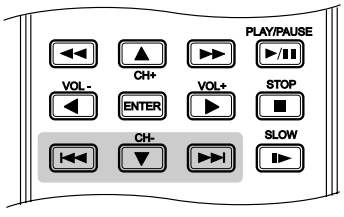
*DVD-Video disc display

3. Playing a specific track, picture, title or chapter using the number buttons

When playing a DVD-Video disc, DVD+R/RW, (Super) Video CD, Audio CD or mixed format disc (JPEG, MPEG, MP3 or WMA) you can jump directly to a track, picture, title or chapter.

❶ Press the number buttons that correspond to the track, picture, title or chapter you wish to play, e.g. to play chapter number 1, press 1 or to play chapter number 10, press 10 on your remote control.

❷ In the DVD menu mode of DVDs (**"MENU"** button), pressing the number buttons that correspond to the title you wish to play will jump directly to the required title.



4. Skipping through chapters, tracks or pictures

While you are playing a disc you can skip to the next or previous chapter, track or picture. This is carried out using the buttons **"⏮"** and **"⏭"** on your remote control.

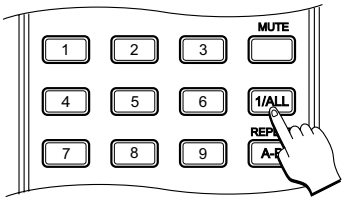
❶ To skip to the beginning of the next chapter, track or picture, press the button **"⏭"**.

❷ To skip to the beginning of the current chapter or track, press the button **"⏮"**.

❸ To skip to the beginning of the previous chapter or track, press the button **"⏮"** twice. With JPEG discs you only need to press this button once to skip to the previous picture.

Using the repeat features[1]

The repeat features allow you to repeat a section of a disc once it has finished playing. According to the disc type, an entire disc, a single track, a folder, a single chapter, a single title or a section of the disc between two selected points can be repeated.



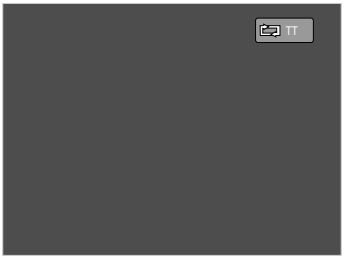
1. Repeating an entire disc

❶ To repeat an entire disc, press the button **"REPEAT 1/ALL"** on your remote control until **"All"** is displayed in the top right corner of the screen.

❷ To stop the disc repeating, press again the button **"REPEAT 1/ALL"** until **"Off"** is displayed on the screen.

Note:
Using this function with Video CDs may require the PBC function to be disabled.

1. The availability of these features is dependent on the current context (for example, the mode and the type of disc) and whether they are permitted by the disc.



Note:
When playing a disc with MP3, JPEG, MPEG and/or WMA files, you can select the random function. See the section **"Random play"** in chapter **"Special features for MP3, JPEG, MPEG and WMA files"** (see page 49).

2. Repeating a track, picture, folder, chapter or title

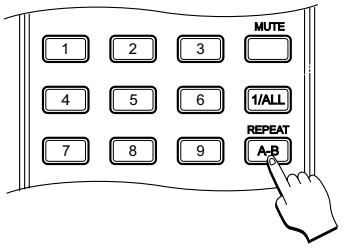
❶ Play the track, picture, folder, chapter or title that you want to repeat. Press the button **"REPEAT 1/ALL"** on your remote control repeatedly until the required repeat mode is displayed in the top right corner of the screen. You can choose from the following options:

"Track"	for Audio CDs, (Super) Video CDs
"CH" (chapter)	for DVDs
"TT" (title)	for DVDs
"All"	for DVDs, Audio CDs, (Super) Video CDs
"Off"	for DVDs, Audio CDs, (Super) Video CDs
"Single"	for JPEG, MPEG, MP3 and WMA files *(Plays only the selected file, then stops.)*
"Repeat one"	for JPEG, MPEG, MP3 and WMA files *(Repeats only the selected file; plays the file in a loop.)*
"Repeat folder"	for JPEG, MPEG, MP3 and WMA files *(Repeats the selected folder continuously.)*
"Folder"	for JPEG, MPEG, MP3 and WMA files *(Plays only the selected folder, then stops.)*

❷ To stop the repeat function when used with DVDs, Audio CDs or (Super) Video CDs, press again the button **"REPEAT 1/ALL"** until **"Off"** is displayed on the screen.

❸ To check the status of the repeat mode when used with JPEG, MPEG, MP3 and/or WMA files, press the button **"DISPLAY"**.

Note:
Using this function with Video CDs may require the PBC function to be disabled.



3. Repeating a section of a disc (A-B)

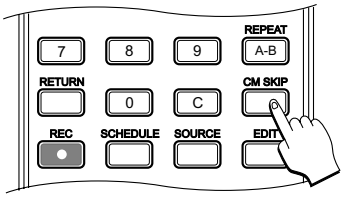
A section of a disc can be repeated by defining two points (A->B). This feature allows you to select where you want the repeat to start and then the section where you want the repeat to stop.

❶ As the disc is playing, press the button **"REPEAT A-B"** on your remote control at the beginning of the section that you want to repeat. The symbol **"A_"** will be displayed in the top right corner of the screen.

❷ Press the button **"REPEAT A-B"** again when the end of the section that you want to repeat is reached. The symbol **"A_B"** will be displayed in the top right corner of the screen.

❸ The section is continually repeated now. To stop the repeat of the section, press the button **"REPEAT A-B"** until **"Off"** is displayed on the screen.

PLAYING FUNCTIONS



Advance 30 seconds / Stop the recording 30 seconds

Using this function, the recorder will jump forward 30 seconds during playback. This function is available for Audio CDs, DVD-Video discs, (Super) Video CDs and MPEG files. On the other hand, press this button to pause your recording 30 seconds.

❶ While playing a disc, press the button **"CM SKIP"**. The disc will be advanced 30 seconds. After this, playback continues.

❷ While recording, press the button **"CM SKIP"** to pause the recording 30 seconds. The time will be counted in reverse direction. After this, the recording will continue.

Playing a disc at different speeds

❶ The function is available to play a disc at different speeds in different directions. To play the disc at different speeds in a forward direction use the button **"▶▶"** on your remote control. The speeds that can be achieved are 2X, 4X, 8X, 16X and 32X.

❷ To play the disc at different speeds in reverse use the button **"◀◀"** on your remote control. The speeds that can be achieved in reverse are 2X, 4X, 8X, 16X and 32X.

❸ To stop playing the disc at different speeds, please press the Play/Pause button **"▶/II"** on your remote control or on the front of the device.

Note:
- This function is not available for JPEG pictures.
- Fast forward/reverse scanning will only work during disc playback, not when the disc is stopped.

Slow play

When a DVD, (Super) Video CD or MPEG disc is played, press the button **"I▶"** on your remote control to slow down the current speed of play.

❶ Whenever the Slow button **"I▶"** is pressed once, the speed of play will slow down from 1/2X>1/4X>1/8X>1/16X.

❷ To return to the normal speed of play, press the Play/Pause button **"▶/II"** on your remote control.

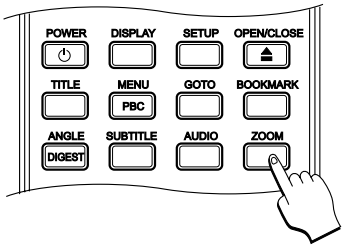
Note:
No sound during slow play:
During slow play, the sound will be muted. This is not a fault of your device.

PLAYING FUNCTIONS

Still the picture frame / Pause a disc

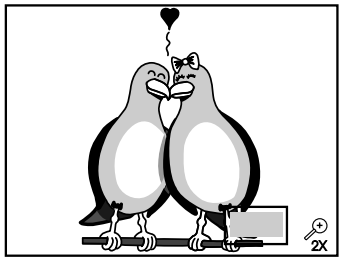
❶ Pressing the Play/Pause button **"►/II"** during play will still the picture frame / pause the disc.

❷ To continue normal play, press the Play/Pause button **"►/II"** again.

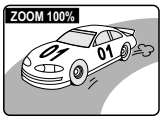


Zooming in and out of an image

The Zoom feature allows you to enlarge the video image and pan through the enlarged image. Zooming in and out can be carried out on a DVD, DVD+R/RW, (Super) Video CD, Picture CD or MPEG disc whether it is played or paused.



❶ When used with DVDs or Video CDs, **"2X"** is displayed on the screen and you are zoomed in. Another pressing of the key will zoom further into the picture (3X, 4X). In the lower right corner of the TV screen appears a further display which shows the zoom factor and the zoomed in field. To zoom out please press the button "ZOOM" again until the required size is reached (1/2, 1/3, 1/4).

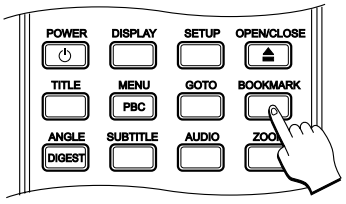


❷ When used with Picture CDs, **"Zoom 100%"** is displayed in the top left corner of the screen. To zoom in please press the button **"►►"**. You can zoom in the picture 125%, 150% and 200%. To zoom out please press the button **"◄◄"** until the required size is reached (possible are 150%, 125%, 100%, 75% and 50%).

❸ When you are zoomed in, you can move around the screen using the direction buttons **"►"**, **"▼"**, **"◄"** and **"▲"**. In this way you can move to a part of the screen you would like to see closer. Pressing the left direction button will move the focus of the Zoom to the left side, and so on.

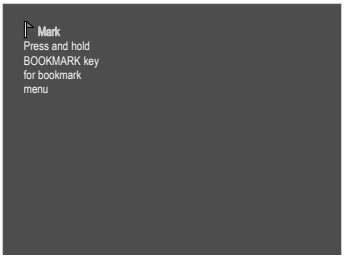
❹ To zoom completely out, press the button **"ZOOM"** again and the picture returns to normal.

PLAYING FUNCTIONS



Using position markers (Bookmark)

The bookmark feature allows you to set markers on the disc. The disc will skip to the place marked. For example, you want to mark your favourite scene in a DVD movie to play back after the movie is finished. You can store up to 6 bookmark locations, which are cleared when the disc is removed. To set a marker, please follow these steps:



❶ As a DVD, Video CD or CD is playing, press the button **"BOOKMARK"** on your remote control to store the current playback position as a bookmark. The video frame at this point (only with DVDs and Video CDs) will be captured and be added into bookmark list. At the same time there will appear an icon informing you that you need to press and hold the **"BOOKMARK"** button in order to access the bookmark menu and to display your set bookmarks.

*DVD-Video disc display

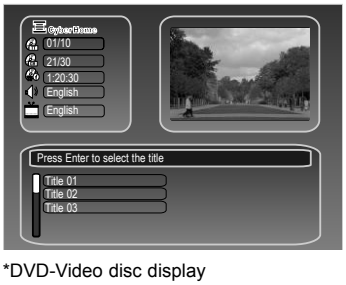
❷ After you have set all required bookmarks, press and hold the **"BOOKMARK"** button. The bookmark menu appears on the screen. The captured frames of each bookmark are listed on the bottom of the screen. Highlight the one you desire by pressing the direction buttons. Details of the stored playback position (chapter, title, track, time information) are displayed in the top left field of the screen.

❸ Press **"ENTER"** to play the selected marker.

❹ If you set the marker to the wrong point, you can delete it by pressing **"C"** on your remote control. Navigate to the marker which you want to delete using the direction buttons **"◄"** and **"►"** and press **"C"**.

❺ To exit the bookmark menu, please press the **"BOOKMARK"** key again.

Note:
The set bookmarks will be cleared after removing the disc.



*DVD-Video disc display

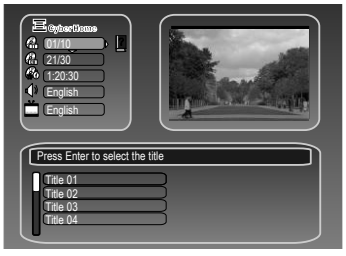
Displaying disc information

Different playback information can be displayed on-screen by pressing the button **"DISPLAY"** on the remote control. In this way you will have quick access to playback information. You may also change the settings in the display menu.

❶ Press the **"DISPLAY"** button while a disc is playing. On the screen will appear a menu (see figure on the left side). You can navigate to the settings by using the direction buttons **"▲"** and **"▼"**. Press the **"ENTER"** button on your remote control to enter a menu point and select the required setting by pressing the buttons **"▲"** and **"▼".**

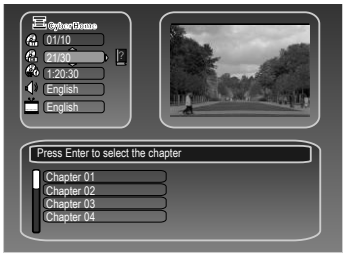
PLAYING FUNCTIONS

Display menu for DVD-Video discs, DVD+R/RW discs



Title:

Indicates the current title and the available titles on the disc. Select the required title by using the direction buttons **"▲"** and **"▼"**.



Chapter:

Indicates the current chapter and the available chapters on the disc. Select the required chapter by using the direction buttons **"▲"** and **"▼"**.

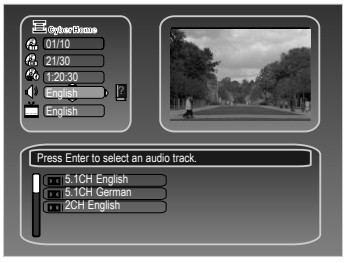
Time:

Displays either the remaining or elapsed time of the title or chapter:

Title elapsed: Displays the time of the title already played.
Title remaining: Displays how much time remains for the current title.
Chapter elapsed: Displays the time of the chapter already played.
Chapter remaining: Displays how much time remains for the current chapter.

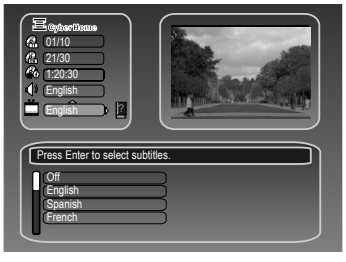
Note:
You can also use the **"GOTO"** button to jump to a specified time. For this, please refer to page 39.

Select the required time display using the direction buttons **"▲"** and **"▼"** and press **"ENTER"** to jump directly to a specified time of the selected mode. Insert the required time using the number buttons **"0-9"** on your remote control.



Audio format:

Indicates the currently selected audio format. Select the required audio setting by using the direction buttons **"▲"** and **"▼"**. The available audio settings are dependent on the available audio tracks on the DVD-Video disc or DVD+R/RW disc.



Subtitles:

Indicates the subtitle status. You can change the subtitle language (depending on the disc content) by using the direction buttons **"▲"** and **"▼"** or you can switch off the subtitles.

PLAYING FUNCTIONS

Display menu for (Super) Video CDs and Audio CDs

*(Super) Video CD display

Track:

Indicates the current track and the available tracks on the disc. Select the required track by using the direction buttons **"▲"** and **"▼"**.

Note:
With (Super) Video CDs you need to disable the PBC function for being able to select a track in the display menu.

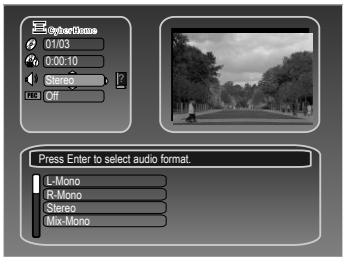
Time:

Displays either the remaining or elapsed time of the disc or track:

VCD or CD elapsed: Displays the time of the disc already played.
VCD or CD remaining: Displays how much time remains for the current disc.
Track elapsed: Displays the time of the track already played.
Track remaining: Displays how much time remains for the current track.

Select the required time display using the direction buttons **"▲"** and **"▼"** and press **"ENTER"** to jump directly to a specified time of the selected mode. Insert the required time using the number buttons **"0-9"** on your remote control. You can also use the **"GOTO"** button to jump to a specified time. For this, please refer to page 39.

Note:
You need to disable the PBC function for being able to jump to a time in the display menu.



Audio format:

Indicates the currently selected audio format. Select the required audio setting by using the direction buttons **"▲"** and **"▼"**. You can choose between:

L-Mono: There will only be output of the left signal on the left and right loudspeaker.
R-Mono: There will only be output of the right signal on the left and right loudspeaker.
Stereo: Sets the stereo signal.
Mix-Mono: The left and right signal will be mixed and put out mixed on the left and right loudspeaker.

PBC:

Here you can set the Playback Control Function (PBC) for (Super) Video CDs to **"PBC On"** or **"PBC Off"** by using the direction buttons **"▲"** and **"▼"**. Confirm your selection with the button **"ENTER"** on your remote control.

Note:
The PBC menu point is only available for (Super) Video CDs.

PLAYING FUNCTIONS

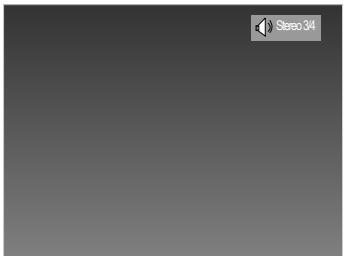
Adjusting the volume

Press the buttons **"VOL +"** and **"VOL -"** on the remote control to adjust the playback volume of the disc. With the button **"VOL +"** you can increase the volume. With the button **"VOL -"** you can decrease the volume. You may adjust the volume from level +00 to level +20.

Suspending audio with the "MUTE" button

❶ To temporarily cancel the audio of the disc you are listening to or watching, simply press the **"MUTE"** button on your remote control. The icon **"🔇"** will be displayed on the screen letting you know that the recorder is in "Mute" mode, i.e. you will have no sound.

❷ Press the button **"MUTE"** again to resume normal playback with sound. The icon "🔇" will disappear.



Changing the audio settings

Most DVD discs and some Video CDs are recorded with multiple audio tracks. These can contain multiple languages and different audio formats. Playback uses the language you selected during initial installation or the main language of the DVD. You can change the audio track of the current disc at any point of time.

❶ You can switch between the various languages and audio modes on DVD discs with the **"AUDIO"** button on your remote control. On Video CDs you can only change the audio mode.

❷ Press the **"AUDIO"** button while a disc is playing to cycle between the languages and soundtracks available on the disc.

❸ Playback continues in the new audio track.

SPECIAL PLAYING FUNCTIONS FOR DVD-VIDEO DISCS

Using the DVD menu

A menu that can be used to select what you want to watch or listen to is provided on many DVDs. There may be, for example, a list of all of the chapters on the disc or a list of extra items that have been provided such as subtitle and audio language selection.

DVD menus will sometimes be displayed automatically when starting playback. Others only appear when pressing the button **"MENU"** or **"TITLE"** (depending on the disc's design) on your remote control as the disc is playing. If the disc does not have a menu, the symbol **"⊘"** will be displayed on the screen.

SPECIAL PLAYING FUNCTIONS FOR DVD-VIDEO DISCS

Navigate around the menu using the direction buttons and press the button **"ENTER"** to select the highlighted item. Many DVD menus have multiple layers to navigate through. Exit the menu by following the menu options to resume playback.

Displaying subtitles

Pre-recorded DVD-Video discs often come with subtitles in several languages. You can change the subtitle language of the current disc or switch off subtitles at any time.

You can change the subtitle language either using the menu of the inserted disc (**"MENU"** button) or the **"SUBTITLE"** button on your remote control. The subtitle languages in the menus may differ.

The number of available subtitles depends on the disc. Displaying subtitles can be carried out as described below:

❶ During playback, press the button **"SUBTITLE"** on your remote control. A message is displayed on the screen indicating the language you have selected.

❷ To change the language that the subtitles are displayed in, press the button **"SUBTITLE"** again until the required language is displayed. To turn the subtitles off, press the **"SUBTITLE"** button until **"Off"** is displayed on the screen.

❸ Playback continues in the new subtitle language.

Changing the camera angle

If a pre-recorded DVD-Video disc contains sequences recorded from different camera angles, you can change the camera angle for playback. You can choose among the available angles on the disc as described below:

❶ During playback, press the button **"ANGLE"** on your remote control. A message is displayed in the lower left corner of the screen indicating the angle you have selected, followed by the total number of angles available.

❷ To change the angle, press **"ANGLE"** again until the required view is displayed. The number of angles depends on the content of the disc. The screen will interchange to the selected angle after 1-2 seconds.

Note:
Most discs with multi angle support will display an indicator or angle mark that alerts the viewer that multiple angles are available for the current scene.

SPECIAL PLAYING FUNCTIONS FOR VIDEO CD´S

Using playback control (PBC)

On Video CDs, the playback control option can be used to enable a menu similar to the DVD menus. There may be, for example, a list of all chapters on the disc or a list of extra items that have been provided. Not all Video CDs have such a menu.

To enable the playback control option, follow these steps:

❶ As the disc is playing, press the button **"PBC"** on your remote control until **"PBC On"** is displayed on the screen. Select the required track using the number keys on your remote control.

❷ In order to disable the PBC function, please press again the button **"PBC"** until **"PBC Off"** is displayed on the screen.

Only Video CDs with playback control can use this playing function. Due to the differences in the disc design, the operation method may be different. Please refer to the instructions of each disc. When the PBC function is activated, pressing the button **"RETURN"** will skip back to the previous level of the menu.

SPECIAL FEATURES FOR MP3, JPEG, MPEG AND WMA FILES

Random play

When playing a disc with MP3, JPEG, MPEG and/or WMA files, you can also play the disc in random mode.

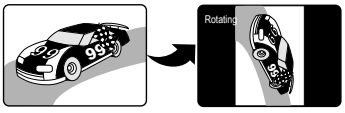
1. Please press the button **"REPEAT 1/ALL"** on your remote control until **"Random"** appears on the screen.

2. To stop the shuffle play, press again the button **"REPEAT 1/ALL"** to select another repeat mode (for more information, refer to page 41).

ADDITIONAL FEATURES FOR JPEG FILES

1. Rotation of a picture

To rotate the picture, press the buttons **"◀"** and **"▶"** on your remote control after you have selected a JPEG file. In this way, the picture can be rotated in each direction.



For example: To rotate an image in the clockwise direction, press the direction key **"▶"** (see pictures on the left).

2. Viewing thumbnails of your JPEG pictures

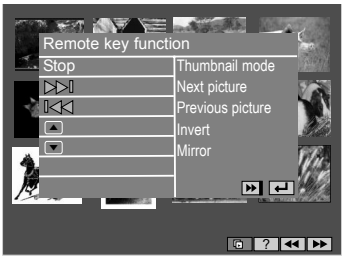
Thumbnails are smaller sized versions of your JPEG files that allow you to preview many files on a single page. Twelve images are shown on each screen.

❶ To make a preview of all pictures, press the **"■"** button on your remote control after you have selected a JPEG file. All pictures will now be shown on the screen.

Note:
You may also press the **"DIGEST"** button to access the thumbnail mode.

❷ Use the direction buttons to navigate to the field **"▶▶"** to preview more pictures if available. To return please select the field **"◀◀"** and press **"ENTER".**

❸ Navigate to a picture by pressing the direction keys. If you have selected the desired picture, press the button **"ENTER"** on your remote control to start playing.



❹ If you are in the preview window mode, you can also select a menu indicating the remote key functions for playing JPEG files. Please navigate with the direction keys to the field **"?"** and press **"ENTER"**. A menu will now be displayed on the screen indicating you all available remote key functions. To leave this menu, select the return icon **"↵"** on the screen.

3. Making a slide show

Start the slide show:

After you have selected a file to view and pressed **"ENTER"**, the picture will be displayed on the screen. From here, you can start the slide show mode by pressing the **"■"** button, selecting the symbol **"⧉"** with the direction keys and pressing **"ENTER"**. The slide show mode displays all JPEG files on the disc in the order they are stored.

MANUAL RECORDINGS

General information

Which discs can be used for recordings?

With this DVD recorder you can record on two types of DVD:

- **DVD+RW:** This disc can be written to several times and then the contents can be deleted.
- **DVD+R:** This type of disc can only be recorded once. If you want to play this disc in a DVD player, it must be finalized using the **"Finalize disc"** function. Once the disc is finalized, it is not possible to make further recordings or changes using this disc.
  If this disc is to be played in a DVD recorder, it must not be finalized. Recordings can be added and deleted. However, the disc space (play-back time) from the deleted recording cannot be recovered for further recordings.

Use the **manual recording** function to spontaneously start recording (e.g. to record a TV show already in progress). Select the title to be overwritten or an empty title in the index picture screen.
If you want to record between existing recordings, check the length of the old recording and the length of the new recording. If the new recording is too long, the following recording (title/chapter) will be overwritten.

Note:
For DVD+R discs each new recording is always added at the end of all previous recordings, as existing recordings cannot be overwritten.

The following sections will inform you about the different possibilities of manual recordings:

- **Selecting the input source**
- **Inserting chapter markers**
- **Selecting the recording mode (quality)**
- **Recording without automatic switch-off:** to start and stop a recording manually.
- **Recording with automatic switch-off:** to start a recording manually but stop it automatically.
- **Displaying information during recording**
- **Interrupt recordings (Pause)**

MANUAL RECORDINGS

Selecting the input source

Press the button **"SOURCE"** on your remote control to open the menu for selecting the video input source. With the buttons **"◄"** and **"►"** or by pressing the **"SOURCE"** button you can select the different sources. If the required source is displayed on the screen (you can see in the illustration, which input is meant), press the button **"ENTER"** on your remote control to confirm your selection. The following sources are available.

Video 1: Video 1 input source. An additional device with SCART output has to be connected to the SCART-2 socket "EXT2 AUX" on the rear side of the DVD recorder. The composite video signal will be transferred over the SCART cable (pin 20) when setting to **"Video 1"**. On the VFD display appears **"VIDEO_1".**

S-Video: S-Video input source. An additional device with S-Video output has to be connected to the SCART-2 socket "EXT2 AUX" on the rear panel of the DVD recorder. The S-Video signal will be transferred over the SCART cable (pin 15 and 20) when setting to **"S-Video"**. On the VFD display appears **"S_VIDEO".**

DVD: DVD recorder mode. To play back an inserted disc.

DV: DV input source. A digital camcorder has to be connected to the "DV IN" socket on the front panel of the DVD recorder. On the VFD display appears **"DV".**

Video 2: Video 2 input source. An additional device with composite video output has to be connected to the "VIDEO IN 2" socket on the front panel of the DVD recorder. On the VFD display appears **"VIDEO_2".**

Tuner: To switch into the tuner mode. By pressing the buttons **"▲"** and **"▼"** on your remote control you can change the programme number. The selected programme number appears on the VFD display.

MANUAL RECORDINGS

Inserting chapter markers

Here you can set a chapter marker interval. Chapter markers will be set automatically during the recording according to the selected interval. It is not possible to insert any chapter markers after the recording has been finished and you cannot delete chapter markers within a title.

❶ Press the button **"SETUP"** on your remote control and enter the setup page **"Recording"**.

❷ Then navigate to the menu **"Chapter marker"** with the direction button **"▼"**. To enter this menu, please press the button **"ENTER"** or **"►"** on your remote control.

❸ Select the required chapter marker interval by pressing the direction button **"▲"** or **"▼"**. You can choose between **"5 min.", "10 min.", "15 min."** and **"Off"**. If no chapter marker is required, select **"Off"**. Confirm your selection by pressing **"ENTER"** on your remote control.

Tip:
How to select set chapters?
❶ Press the button **"DISPLAY"** on the remote control. The titles and chapters are shown in the display menu on screen.
❷ Use the button **"▼"** or **"▲"** to select **"Title"** or **"Chapter".**
❸ Use the button **"◄"** or **"►"** to select the title or chapter you wish to play.

Selecting the recording mode (quality)

By selecting a recording mode, you define the picture quality of recordings and the maximum recording time for a disc.

❶ Press the button **"SETUP"** on your remote control and enter the setup page **"Recording"**.

❷ Select **"Recording quality"** and press the button **"►"** or **"ENTER"** to access the recording quality menu.

❸ Select the required recording quality with the direction buttons and confirm your selection by pressing **"ENTER"** on your remote control.

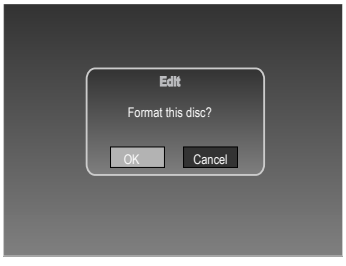
Tips:
Which recording modes are available?
You can choose one of the following recording modes:
HQ: High Quality offers the best picture quality and a recording time of approx. 60 minutes.
SP: Standard Play (DVD quality) offers excellent picture quality with a recording time of approx. 120 minutes.
LP: Long Play (S-VHS picture quality). Recording time approx. 180 minutes.
EP: Extended Play (better than VHS quality). Recording time approx. 240 minutes.
SLP: Super Long Play (VHS picture quality). Recording time approx. 360 minutes.

MANUAL RECORDINGS

Recording without automatic switch-off

❶ Turn on the TV and the DVD recorder.

❷ Insert a disc to be used for the recording. The system and content of the disc will be checked. **"LOAD"** will appear on the display.



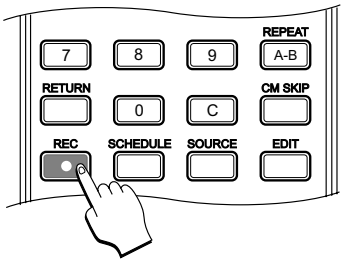
Problems:

- **Index display:**
  A DVD+RW disc was inserted that already contains recordings. Use the button **"▲"** or **"▼"** to select a location where the recording should be started.
- **A dialog box appears asking if the disc should be formatted or the disc should be ejected:**
  This disc cannot be used for recordings until the entire disc is formatted. Select **"OK"** to format the disc. The disc will be erased.

❸ Select the source you wish to record from using the button **"SOURCE"** on your remote control. In the example shown on the left side we select **"Tuner"** as source. In Tuner mode you also have to select the required programme number by using the buttons **"CH+"** or **"CH-"** on your remote control.

Tip:
Input sources of the external inputs:

Video 1:	SCART socket 2 on the rear side **"EXT 2 AUX"**.
S-Video:	SCART socket 2 on the rear side **"EXT 2 AUX"**.
Video 2:	Video/Audio front sockets **"VIDEO IN 2 / L AUDIO IN R"**.
DV:	Digital Video (Firewire/i Link) front socket **"DV IN"**.



❹ Press the **"REC"** button on the remote control or the **"RECORD"** button on the front panel to start the recording.

❺ To stop the recording, press the Stop button **"■"** on your remote control and on the screen appears the message **"Please wait..."** together with the progress bar and on the VFD display appears **"PROCESS".** Please wait until the message disappears from the screen, then the recording is completed.

Tip:
Making recordings on DVD+R discs compatible:
If you want to play back the recording on a DVD player, you need to finalize the disc in the DVD recorder. See the section **"Finalizing DVD+R discs"** in chapter **"Managing the disc contents"** (see page 60).

Problem:
Error message "Recording stopped because disc is full":
If this message appears during your recording, please insert a new recordable disc and start the recording again from the place your recording was interrupted. Please note that the recording material will not stop after this error message appears.

MANUAL RECORDINGS

Recording with automatic switch-off

❶ Insert a disc.

❷ Select the input source you wish to record from using the button **"SOURCE"** on your remote control.

❸ Press the **"REC"** button on the remote control to start the recording.

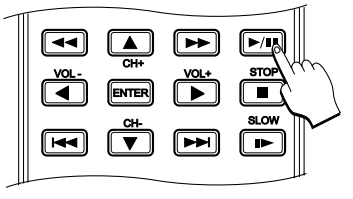
❹ Each time you press the **"REC"** button you will add 30 minutes to the recording time (max. 90 minutes possible). In this way, your recording may be stopped automatically (e.g. after 30 minutes), in case you are not able to stop it by your own.

Displaying information during recording

During recording, you may press the button **"DISPLAY"** on your remote control to check the record information of your current recording. A menu appears on the TV screen showing you the following information:

- recording date and start time of your recording
- selected video input source, e. g. Video 2
- remaining time for your recording according to the selected recording quality
- elapsed time
- recording quality for your recording

Interrupt recordings (Pause)



❶ During recording, press the Play/Pause button **"►/II"** to avoid recording the commercial. The icon **"II"** appears on the VFD display.

❷ To continue recording, press the Play/Pause button **"►/II"** again.

❸ To stop the recording, press the Stop button **"■"** on your remote control and on the screen appears the message **"Please wait..."** together with the progress bar and **"PROCESS"** appears on the VFD display. Please wait until the message disappears from the screen, then the recording is completed.

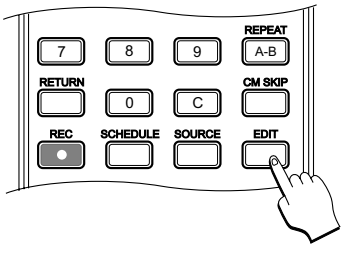
MANAGING THE DISC CONTENTS

General information

When a recording is made to a disc, the following additional information are also stored at the beginning of the recording.

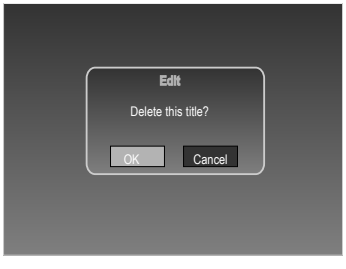
- Name of the recording - If the TV station does not transmit a name, only the input source will be stored as the name, e.g. **"Video 2".**
- Length of the recording
- Record mode (quality)
- Date of the recording
- Index picture of the recording

A marker will be set every 5-15 minutes, if the **"Chapter marker"** function is activated in the **"Recording"** menu (see page 66). This marker is known as a chapter. This means that chapters you do not want to see during playback can be skipped.



Using the edit menu you can adjust a title to your personal preferences. During playback, press the button **"EDIT"** on your remote control to open this menu. The following sections will inform you about the possibilities to edit a disc:

- **Deleting a title:** to delete a title.
- **Protecting or unprotecting a title:** to add or remove a write-protection to/from a title.
- **Renaming a title name:** to find out how to change a name.
- **Deleting A-B:** to delete point A to point B within a title.
- **Formatting a disc:** to format the disc in order to make it compatible to your DVD recorder.
- **Finalizing DVD+R discs:** to finalize a DVD+R disc for being able to play it in other DVD players.

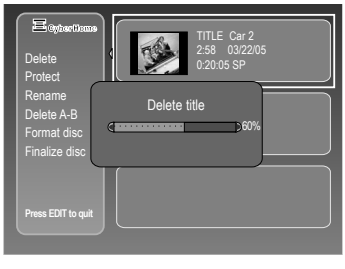


Deleting a title

You can delete individual recordings from a disc. Proceed as following:

❶ Select the title to be erased by pressing the button **"▲"** or **"▼"**.

❷ Press the button **"EDIT"** on your remote control, select **"Delete"** with the direction buttons and confirm your selection by pressing **"ENTER"** on your remote control.



❸ The message **"Delete this title?"** appears on the TV screen. Please select **"OK"** with the direction button, if you want to delete this title. The delete title progress bar appears on the TV screen and the required title is deleted.

❹ If you do not want to delete this title, select **"Cancel"** to cancel this operation.

MANAGING THE DISC CONTENTS

Protecting/unprotecting a title

To prevent an important recording from being accidentally erased, you can protect a title.

What happens with DVD+R discs?
As long as discs have not been finalized, you can protect titles on the disc - the same as DVD+RW discs.

❶ Select the title to be protected by pressing the button **"▲"** or **"▼"**.

❷ Press the button **"EDIT"** on your remote control, select **"Protect"** with the direction buttons and confirm your selection by pressing **"ENTER"** on your remote control.

❸ The message **"Protect this title?"** appears on the TV screen. Please select **"OK"** with the direction button if you want to write-protect this title.

❹ If you do not want to protect this title, select **"Cancel"** to cancel this operation.

❺ The protect title progress bar appears on the TV screen and the required title is protected.

❻ In the lower right corner of the protected title appears the icon **"🔒"** to inform you that this title is protected. In this status you are only able to play the title respectively to unprotect the title again or to format the disc. All other options in the edit menu are not possible.

Tip:
If you want to unprotect the title at a later date, please repeat the steps and choose in step ❷ **"Unprotect"**. The unprotect title progress bar appears on the TV screen, the required title is unprotected and the icon **"🔒"** disappears.

MANAGING THE DISC CONTENTS

Renaming a title name

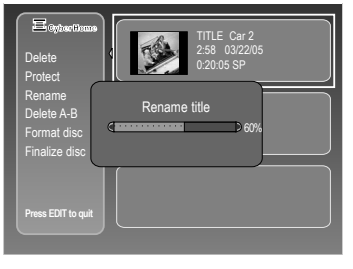
Some TV stations transmit the title (name) of a programme. In this case, the name will be included automatically (e.g. “ROCKY”). Otherwise, the selected input source is stored as the name. The name of the recording can only be changed after the recording has been completed.

❶ Select the title whose name you want to edit by pressing the button **“▲”** or **“▼”.**

❷ Press the button **“EDIT”** on your remote control and select **“Rename”** with the direction buttons. Confirm your selection with the button **“ENTER”** on your remote control. The virtual keyboard appears on the TV screen.

❸ First, please press the button **“C”** on your remote control to clear the wrong title name. Then use the direction buttons **“◄”, “►”, “▲”** and **“▼”** to select the letter you require and press the button **“ENTER”** on your remote control to confirm your selection.

❹ If you want to insert small letters, please navigate to the field **“a”** and press **“ENTER”** to confirm. The virtual keyboard will now display only small letters. If you want to insert again capital letters, select **“A”**. You can also insert icons e. g. a colon. For this, please navigate to the field **“$”** and press the button **“ENTER”** on your remote control to confirm your selection. The virtual keyboard will now display icons. For adding an empty space, please navigate to **“Space”** and press **“ENTER”**.



❺ To confirm the new title name, please highlight the field **“Enter”** and press the button **“ENTER”** on your remote control. A status bar will appear on the screen and the new title name is stored.

❻ If you do not want to save the new title name, please highlight the field **“Cancel”** and press the button **“ENTER”** on your remote control. The virtual keyboard will disappear and the previous title name retains on the screen.

Deleting A-B

With this function you can erase a part of a title. This means that scenes you do not want to see during playback, such as commercials, can be deleted. Proceed as follows:

❶ Select the title where you want to erase a part by pressing the button **“▲”** or **“▼”**.

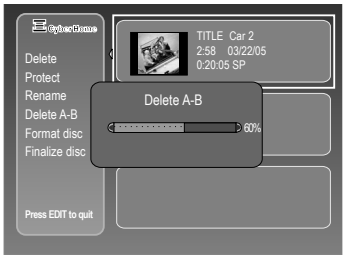
❷ Press the button **“EDIT”** on your remote control, select **“Delete A-B”** with the direction buttons and confirm your selection with the button **“ENTER”** on your remote control. A further display appears on the screen and the selected title is played back in top of the screen.

MANAGING THE DISC CONTENTS

❸ The lower left box is highlighted and is showing the message **"Set A"**. Please press the button **"ENTER"** on your remote control at the position where you want to start the erasing procedure.

❹ The lower right box will be highlighted after you marked the start point of the erasing section. **"Set B"** is now shown on the screen.

❺ Then, press the button **"ENTER"** on your remote control to mark the point where you want to stop the erasing procedure. If you want to delete the part which you have marked, then navigate to the field **"OK"** with the direction buttons and press the buttton **"ENTER"** on your remote control to confirm.

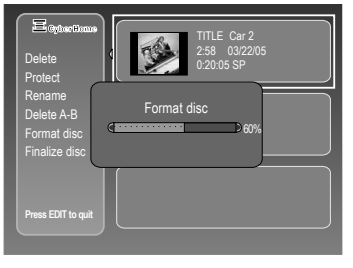


❻ The **"Delete A-B"** progress bar appears on the screen and the selected section is deleted.

Note:
If you want to change the selected section for deleting, please navigate to the left or right box and press the button **"ENTER"** on your remote control at the time when you want to start or stop the erasing procedure.

Formatting a disc

❶ You can format the required disc by pressing the button **"EDIT"** on your remote control and selecting **"Format disc"** with the direction buttons. Confirm your selection by pressing the **"ENTER"** button on your remote control. A further display appears on the TV screen. See illustration on the left.

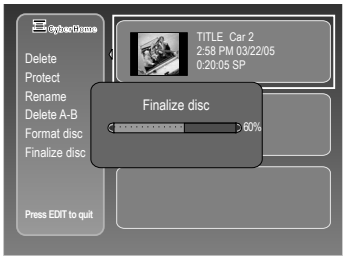


❷ To format the disc, navigate to the field **"OK"** with the direction buttons and press then **"ENTER"** to confirm. The format disc progress bar appears. Please wait some seconds. First, **"PROCESS"** appears on the VFD display, then **"ROOT"**. If the formatting is finished successfully, the title menu of the formatted disc with the free space appears on the TV screen.

❸ If you do not want to format the disc, please select **"Cancel"** and press **"ENTER"** on your remote control to cancel this operation.

MANAGING THE DISC CONTENTS

Finalizing DVD+R discs



❶ You can finalize the required DVD+R disc by pressing the button **"EDIT"** on your remote control and selecting **"Finalize disc"** with the direction buttons. Confirm your selection by pressing the **"ENTER"** button on your remote control. A further display appears on the TV screen (see illustration on the left). Finalizing a disc may be necessary to play a DVD+R disc in other DVD players.

❷ To finalize the disc navigate to the field **"OK"** with the direction buttons and press then **"ENTER"** to confirm.

❸ The finalize disc progress bar appears. Please wait some seconds. If the finalizing is finished successfully, on the TV screen appears the title menu of the finalized disc.

❹ If you do not want to finalize the disc, please select **"Cancel"** and press **"ENTER"** on your remote control to cancel this operation.

Note:
After finalizing the disc, it will not be possible to record to the disc.

PROGRAMMING A RECORDING (TIMER)

General information

Use the feature “Programming a recording (timer)” to automatically start and stop a recording at a later date. The DVD recorder will automatically switch to the right programme number and begin recording at the programmed time.

To make a programmed recording, your DVD recorder needs to know the following data:

- the date you want to make the recording
- the start time and length of the recording
- the input source from which you want to record
- the recording quality (HQ, SP, LP, EP, SLP)
- VPS/PDC on or off
- the recurrence mode

These information are saved in a timer block.

What is VPS/PDC?
With VPS (Video Programming System) / PDC (Programme Delivery Control) the TV station controls the start and duration of TV channel recordings. If a TV programme starts earlier or ends later than it was scheduled, the DVD recorder will still switch itself on and off at the correct times.

What do I need to know about VPS / PDC?
- Usually the start time is the same as the VPS or PDC time. But if your TV guide gives a VPS or PDC time which is different from the programme’s start time, e.g. “20:15 (VPS/PDC: 20:14)”, you must enter the VPS/PDC time “20:14” exact to the minute as the start time. If you want to program a time that is different from the VPS or PDC time, you must switch off VPS or PDC.
- Only one TV programme on a TV channel can be controlled using VPS/PDC at a time. If you want to record two or more TV programmes on a TV channel using VPS/PDC, you will need to programme these as two separate recordings.
- The DVD recorder needs a certain warm-up time for the start of the recording, e.g. to load the disc and for positioning the laser. Therefore, it is possible that the first seconds are missing when recording a TV show using VPS/PDC. In this case we recommend to switch VPS/PDC off and to program a start time that is one minute earlier.

Non-interruptible tasks

Some tasks cannot be interrupted by recording while the current task continues to completion, delaying the scheduled recording and recording notice. If the current task continues longer than the scheduled recording time, the recording is skipped completely. The following tasks are not interruptible by recording:

- *channel search*
- *resetting to user defaults - this also clears all scheduled recordings*
- *formatting a disc*
- *finalizing DVD+R discs*
- *firmware update*

PROGRAMMING A RECORDING (TIMER)

Programming a recording

❶ Turn on the TV and the DVD recorder.

❷ Then press the button **"SCHEDULE"** on your remote control. The timer recording menu appears on the screen.

❸ Use the direction button **"▼"** to select a line for programming a new recording and press the button **"ENTER"** to confirm.

❹ To programme a recording proceed as following:

- At first, select the date (dd/mm) when you want to record by pressing the direction buttons **"▲"** and **"▼"** or the number buttons **"0-9"** on your remote control. If your settings are correct, please press the button **"►"** to enter the next input field.

- Then enter the start time (hh/mm) and length (hh/mm) with the number buttons **"0-9"** on your remote control or with the buttons **"▲"** and **"▼"**.

- Then select the source from which you want to record. Use the buttons **"▲"** and **"▼"** to select. You can choose between: Programme 1 up to Programme 108, Video 1, Video 2, S-Video and DV.

- Next, please select if you want to activate or deactivate VPS/PDC.

- Then select the recurrence mode. The recurrence mode indicates how often and when your scheduled recording shall start. You can select between the following recurrence modes by pressing the buttons **"▲"** and **"▼"** in the field **"Repeat"**:

  Once: Recording that will only be made once.
  Mo-Fr: Recordings that will be repeated daily from Monday to Friday.
  Daily: Recordings that will be repeated daily.
  Weekly: Recordings that will be repeated weekly (every week on the same day).

  Select the required recurrence mode and press the button **"ENTER"** on your remote control to confirm your selection.

❺ When all information are correct, **"OK"** will appear in the **"Result"** field.

"OK" does not appear in the "Result" field:
- If the recording overlaps with another programmed recording, **"Overlap"** will appear.
- If the time for the recording is overdue, **"Overdue"** will appear.
- If the entered value for the length of the recording is longer than the maximum possible length for the selected recording quality, **"Overflow"** will appear.

❻ Press the **"SCHEDULE"** button to end.

❼ Insert a DVD+R/RW disc ready for recording. The current disc is checked.

PROGRAMMING A RECORDING (TIMER)

❽ Switch off the DVD recorder with the button **"STANDBY/ON"** on the front of the device or with the button **"POWER"** on the remote control. The programmed recording will only function, if the DVD recorder remains in standby mode. If one or more recordings have been programmed, **"TIMER"** will be displayed in red on the display of the DVD recorder provided the DVD recorder is in standby mode.

❾ You may check the status of your recording later on. If the recording was successfully, **"Done"** will be displayed in the **"Result"** field. If it failed, **"Failed"** will be displayed. If you are checking the recording status during your recording by pressing **"SCHEDULE"**, **"Run"** will be displayed in the **"Result"** field indicating that your timer recording is currently running.

Editing / deleting a programmed recording

❶ Turn on the TV.

❷ Switch on the DVD recorder and then press the button **"SCHEDULE"** on your remote control.

❸ Select the programmed recording (timer) you want to check, change or delete by pressing the button **"▲"** or **"▼"**. Then press the button **"ENTER"** on your remote control.

❹ A further display appears on the screen asking you if you want to delete or edit your programmed recording.

❺ Highlight the field **"Edit"** and press the button **"ENTER"** to confirm your selection. Now you can edit the selected timer recording If your selection is now correct, please press the button **"ENTER"** to confirm your current timer recording.

❻ If you want to delete the timer recording, please navigate to the field **"Delete"** with the direction button **"►"** and press **"ENTER"** to confirm.

❼ To cancel this operation select **"Cancel"** with the direction button and press **"ENTER"** on your remote control.

PROGRAMMING A RECORDING (TIMER)

Problem solving for programmed recordings

The DVD recorder is not responding.	• While a programmed recording is being made, you cannot operate your DVD recorder manually. If you want to stop the programmed recording, press the Stop button **"■"** or the button **"STANDBY/ON"**.
"Timer recording will start in a few minutes" appears on the TV screen.	• The DVD recorder was switched on several minutes before the start of a programmed recording. Switch off the DVD recorder with **"STANDBY/ON"** on the front panel or **"POWER"** on the remote control. A programmed recording (Timer) will only function, if the DVD recorder is switched off (standby).
Error message "Please insert a recordable disc".	• Either no disc has been inserted, you cannot record to this disc, the disc tray is open or the optical disc is not initialized. Insert a disc that you can record onto. Switch off the DVD recorder with **"STANDBY/ON"** on the front panel or **"POWER"** on the remote control.
Error message "Time is overdue!".	• The time for the recording is overdue. Please check the date, start time and length of the programmed recording.
Message "Overlap" appears.	• The information for two programmed recordings overlap. • If you ignore this error message, the TV programme with the earlier start time will be recorded first. You will miss the start of the second programme. • Change the information for one of the recordings. • Delete one of the recordings.
Error message "The time exceeds the current time too long!".	• If this error message appears, the DVD recorder cannot programme the current recording, as there is not enough space on the disc for the recording in the selected recording quality. You have to change the recording quality, if you want to programme this recording.
Error message "Video signal is unstable".	• The TV signal is unstable, no recording can be made.

USER PREFERENCES

Your recorder features an on-screen setup menu that allows you to adjust settings for your video and audio preferences, and enable recorder features like parental lock. When you change settings in the setup menu, they are stored even when power is turned off. **Exception:** If the DVD recorder is completely switched off (no power - power cord is not connected), the time and date information will be deleted after approximately 4 hours.

If you wish to return to the user defaults, they can be easily reset in the **"General"** setup menu. The sub-menus for each item will be displayed at the bottom of the L-shape menu (consists of main menu at left hand side and sub-menu at the bottom). Note that there is a **"?"** icon beside each item, which will show the **"Help"** information on the top right of the screen.

Important notes for moving in the setup menu

- The setup menu is divided into the following menus:

  Recording

  Audio/Video

  Disc

  General

  Help

- The setup menu can be accessed during disc playback. Nevertheless, you may not have access to all options all the time. For example, you need to select the **"Tuner"** mode to have access to the tuner settings.

- Press the button **"SETUP"** on the remote control to display the setup menu. The menu appears.

- By pressing the buttons **"▲"** and **"▼"** select the menu that you would like to set and confirm with **"ENTER"**. When pressing the direction button **"►"**, you will access the help menu of the corresponding menu point.

- Press the buttons **"▲"** and **"▼"** to select a submenu and press **"ENTER"** or the direction button **"►"** to open it.

- Select the desired feature with the button **"▲"** or **"▼"**.

- To confirm your selection, please press the button **"ENTER"**.

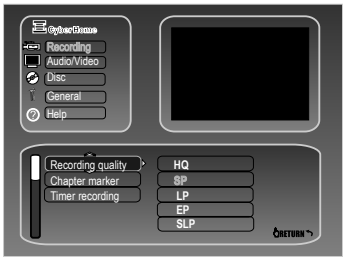
- To leave a submenu press the button **"RETURN"** or **"◄"** on your remote control. To leave a main menu press **"RETURN"** or **"▲"**.

- You can leave the menu at any time by pressing the button **"SETUP".**

USER PREFERENCES

Recording related settings

Highlight the menu point you would like to set in the **"Recording"** setup page. Please press **"ENTER"** to enter a menu. Use the button **"▲"** or **"▼"** to select the required recording setting and press **"ENTER"** or **"►"** to confirm your selection. To leave a submenu, press the button **"RETURN"** or **"◄"** on your remote control.



Recording quality

You can choose one of the following recording modes:

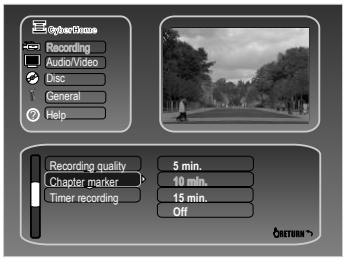
HQ (approx. 1 hour): **High Quality** offers the best picture quality and a recording time of approx. 60 minutes.

SP (approx. 2 hours): **Standard Play (DVD quality)** offers excellent picture quality with a recording time of approx. 120 minutes.

LP (approx. 3 hours): **Long Play (S-VHS picture quality).** Recording time approx. 180 minutes.

EP (approx. 4 hours): **Extended Play (better than VHS quality).** Recording time approx. 240 minutes.

SLP (approx. 6 hours): **Super Long Play (lower than VHS picture quality).** Recording time approx. 360 minutes.



Chapter marker

If this feature is activated, each 5 to 15 minutes chapter markers will be set automatically during recording. That means a new chapter will start on this place. For more details, see the section **"Inserting chapter markers"** in chapter **"Manual recordings"** (see page 53).

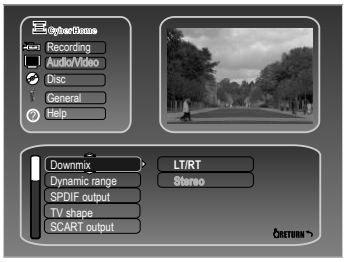
Timer recording

Use this feature to set a timer recording. For more information, please refer to page 62, section **"Programming a recording (timer)".**

USER PREFERENCES

Audio/Video related settings

Highlight the menu point you would like to set in the **"Audio/Video"** setup page. Please press **"ENTER"** to enter a menu. Use the button **"▲"** or **"▼"** to select the required audio or video setting and press **"ENTER"** or **"►"** to confirm your selection. To leave a submenu, press the button **"RETURN"** or **"◄"** on your remote control.

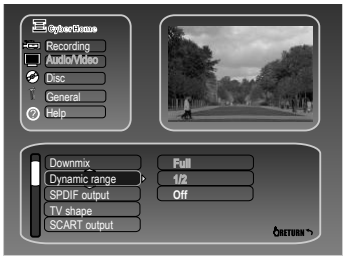


Downmix

Since most DVD discs feature Dolby Digital 5.1 channel soundtracks, you will need to use the downmix options. You have the following setup options:

LT/RT: If you set to LT/RT, a mixed signal of the surround signal will be produced on the left and right output. The left output signal consists of the front left signal plus centre and the sum signal of the left and right signal of the surround speakers. The right output signal consists of the front right signal plus subwoofer plus the difference signal of the left and right signal of the surround speakers. This setting should be used only with Dolby Pro Logic receivers capable of decoding this signal type.

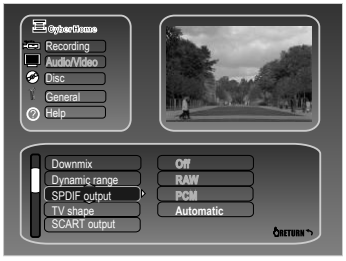
Stereo: If you plan to use the stereo analogue outputs for a connection to a TV or receiver, you must enable this setting to downmix the 5.1 channel soundtracks of most DVD movies to a stereo format. If you set to stereo, the left signal consists of the front left signal plus surround left signal and sum signal of the centre and subwoofer. The right signal consists of the front right signal plus surround right signal and sum signal of the centre and subwoofer. This setting should be used for most televisions and stereo audio equipment.



Dynamic range

In this menu you can set the dynamic range. This option is sometimes called "midnight mode". The Dynamic Range Compression aims to make watching a movie at low volumes more enjoyable by boosting the quieter sounds while suppressing the louder sounds. Use the buttons **"▲"** and **"▼"** to adjust this mode to **"Full"**, **"1/2"** or **"Off"**. Confirm your selection by pressing **"ENTER"** on your remote control.

USER PREFERENCES



SPDIF output

For A/V receiver or amplifier connected to the DVD recorder's **"COAXIAL"** socket, you can select from the following settings:

Off: The digital output is switched off. This setting is suitable for devices with analogue audio input.

RAW: Dolby Digital signals are fed unaltered to the digital output. Generally, this setting is used with receivers capable of Dolby Digital 5.1 channel decoding.

PCM: Dolby Digital and MPEG 2 multi-channel signals are converted to PCM (Pulse Code Modulation). This setting is suitable for amplifiers or receivers without digital multi-channel sound decoders.

Automatic: Dolby Digital signals are fed unaltered to the digital output. MPEG 2 multi-channel signals are converted to PCM (Pulse Code Modulation). This setting is suitable for amplifiers or receivers with digital multi-channel sound decoders.

TV shape

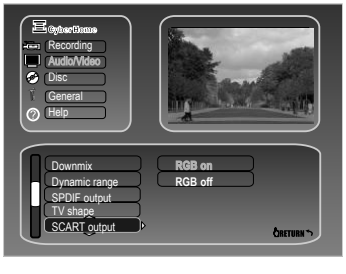
You can setup your recorder to work with normal and wide-screen televisions. Select one of the following options:

4:3 panscan: Transmission of a wide-screen film on a TV with normal size. The picture is displayed in full-height with the sides trimmed.

4:3 letterbox: This setting will enable the "Letterbox" format, where the movie is presented in wide-screen format with black lines at the top and bottom of the screen.

16:9: If you are using a wide-screen TV, set to the option "16:9" to match the aspect ratio of your TV.

Note: The 4:3 letterbox and 4:3 panscan settings usually will have no effect, since very few movies support both options. DVDs are generally recorded with either panscan or letterbox and do not allow switching between the two.



SCART output

By default the recorder is set to **"RGB off"**. Select **"RGB on"**, if you want to activate RGB via the SCART output **"EXT1 TO TV"**.

RGB is an electrical transmission possibility for video pictures, i.e. it is a picture signal, which is splintered according to the primary colours of the TV (red, green and blue).

USER PREFERENCES

Brightness

To adjust the intensity of light emitted. The setting range for the picture brightness is from -16 to 16. Set the brightness with help of the buttons **"◄"** and **"►"** and press then **"ENTER"** to continue.

Contrast

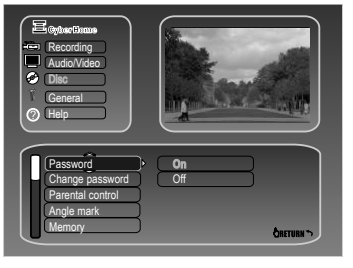
Adjustment of the picture contrast. The contrast is decisive for the overall display. Light spots should stand out clearly from dark spots without loosing the strength of the picture. The setting range is from -16 to 16. Set the contrast with help of the buttons **"◄"** and **"►"** and press then **"ENTER"** to continue.

Saturation

To adjust the intensity of the colour in a video picture. The setting range for the colour saturation is from -16 to 16. Set the saturation with help of the buttons **"◄"** and **"►"** and press then **"ENTER"** to continue. The colours should be naturally and should not glow exaggeratedly.

Disc related settings

Highlight the menu point you would like to set in the **"Disc"** setup page. Please press **"ENTER"** to enter a menu. Use the button **"▼"** or **"▲"** to select the required disc setting and press **"ENTER"** or **"►"** to confirm your selection. To leave a submenu, press the button **"RETURN"** or **"◄"** on your remote control.



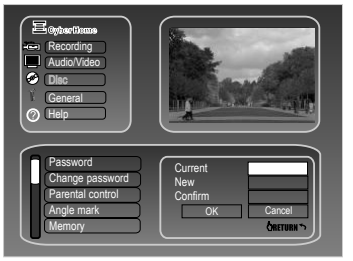
Password

In the **"Password"** menu you can activate or deactivate the password to control the parental lock. Select **"On"** to activate the password or **"Off"** to deactivate it.

You are prompted for a password. This of course makes sense, as this option would be useless if your kids could enter the setup menu and disable it! You will be prompted to enter the current existing password. Key in the password and press **"ENTER"** to leave this page. If set to **"Off"** you will not need to enter a password to make changes to password required settings such as parental control.

Note:
If you have not yet set an user password, leave the menu by pressing the direction key **"◄".** In this case please refer to the next menu **"Change password"** to set up a new password.

USER PREFERENCES



Note:
If you have forgotten your password, you can enter the default password 1369. Please keep in mind that your recorder may not be secure if this manual is accessible by your children.

Change password

In this menu you can create a new password or later change your existing password. To set the password, please highlight **"Change password"** with the direction button **"▼".** Press then **"ENTER"** to open the password page.

When setting up a password the first time, you will be asked to enter the current existing password. Please enter the default password **"1369"**. If you change the password at a later date, please enter the last stored password.

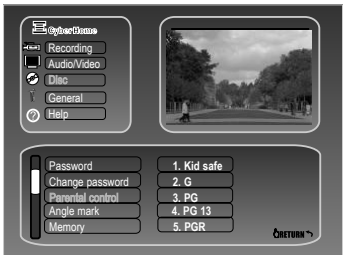
Then choose a 4-digit numeric password, enter it in the **"New"** field and confirm it again. Write the password down in case you forget it. In order to activate the new password, please select **"OK"** and leave the setup menu by pressing **"SETUP"**. When pressing again the **"SETUP"** button, the new password is activated.

Note: If the password is activated (see **"Password"** menu), any changes in the parental setup will require to enter a password. The password set up is explained in the **"Change password"** menu.

Parental control

Your DVD recorder features a parental control option that can be used to limit playback of DVD-Video discs that exceed the rating you specify. When the parental level is set, DVD-Video discs that are over this level will play only after the correct password has been entered.

Attention:
This feature has to be supported by the DVD-Video disc! However, typically only DVD discs produced by major entertainment companies support parental control. DVD-Video discs not supporting this feature will be "immune" to the lock-out.

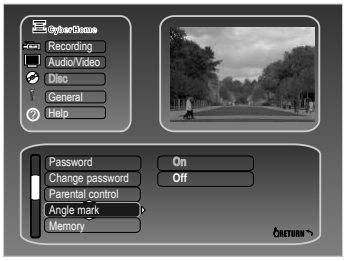


Use the buttons **"▲"** and **"▼"** to select the required parental level and press **"ENTER"** to confirm your selection. You can choose from 8 levels of parental control, corresponding to the standard rating system. The lower the value is, the more strict the limitation. The available levels and their equivalent ratings are listed below.

1. Kid safe: Suitable for all audiences
2. G: Suitable for general audiences
3. PG: Parental guidance suggested
4. PG 13: Parental guidance suggested, unsuitable for children under 13
5. PGR: Parental guidance recommended - implications or very brief discreet language or situations
6. R: Restricted - violence, adult language and situation unsuitable for young viewers
7. NC 17: Adult theme or content, not suitable for children under 17
8. Adults: Adult themes, language and nudity. No parental control.

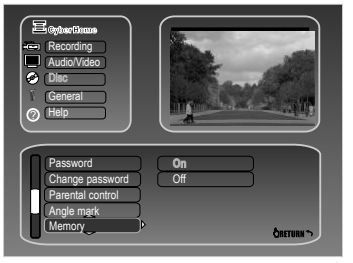
To activate the set parental level, please leave the setup menu by pressing **"SETUP"**. When pressing again the **"SETUP"** button, the parental lock is activated.

USER PREFERENCES



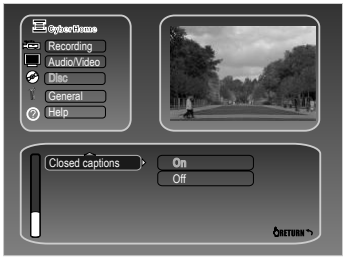
Angle mark

Here, you can enable or disable the multi-angle display. When used with discs supporting multi-angle features, the current selected angle will be displayed continuously on screen, if you select the **"On"** setting. Setting the angle mark option to **"Off"** will cancel continuous display, and the current angle will be displayed on-screen for just a few seconds after an angle change. The number of angles depends on the disc.



Memory

This feature allows you to restart a disc from the last position played at a future time provided the DVD recorder remains in standby mode. If you desire this feature to be enabled, set this option to **"On"**. When set to **"Off"**, discs will always begin playback at the beginning.



Closed captions

In this menu you can enable or disable the closed captions feature. These are especially for hearing impaired people. Please note that the DVD-Video disc has to support this feature. Furthermore, you need a video subtitle decoder.

General settings

Highlight the menu point you would like to set in the **"General"** setup page. Please press **"ENTER"** to enter a menu. Use the button **"▲"** or **"▼"** to select the required setting and press **"ENTER"** or **"►"** to confirm your selection. To leave a submenu, press the button **"RETURN"** or **"◄"** on your remote control.

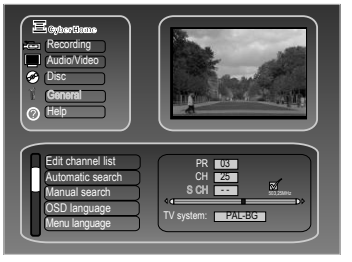
Edit channel list

In this option you can edit the TV channel list. Select this option with the button **"ENTER"** on your remote control and on the screen appears the TV channel list. Here you can sort, add/delete and rename TV channels. For more information, please refer to page 30 **"Sorting, adding, deleting and renaming TV channels"** in chapter **"Installing your DVD recorder"**.

Automatic search

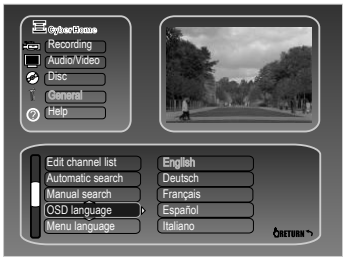
Select this option to search automatically for TV channels. Navigate with the button **"▼"** to this feature and press **"ENTER"**. The automatic TV channel search starts. This takes some minutes, please wait. For more information, please refer to page 29 **"Automatic TV channel search"** in chapter **"Installing your DVD recorder"**.

USER PREFERENCES



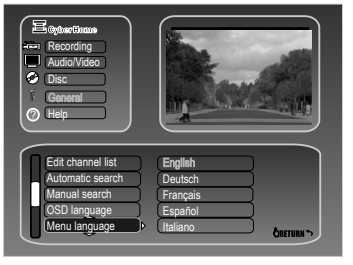
Manual search

In this option you can search manually for TV channels. Navigate with the button **"▼"** to this feature and press **"ENTER"**. A further menu appears on the screen where you can set the programme number, channel or special channel station, the frequency and the TV system. For more information, please refer to page 28 **"Manual TV channel search"** in chapter **"Installing your DVD recorder"**.



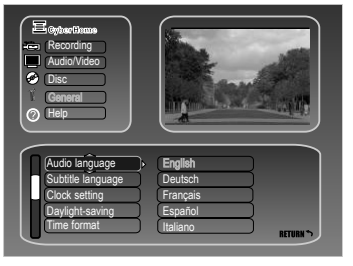
OSD language

With this setting you can change the language of the on-screen display menus. You can choose between different languages.



Menu language[1]

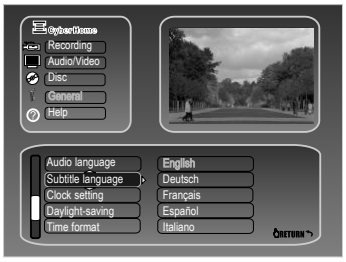
Sets the language in which the menus provided on the disc are displayed (dependent on the disc content). If the required language won't be shown in this menu, please select the option **"Other"** and key in the language code of the required language. Please refer to the language codes on the next page.



Audio language[1]

Selection of the desired audio language for playback. If the required language won't be shown in this menu, please select the option **"Other"** and key in the language code of the required language. Please refer to the language codes on the next page.

USER PREFERENCES



Subtitle language[1]

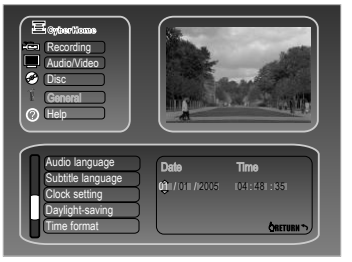
With this setting you can change the language of the disc subtitles. If the required language won't be shown in this menu, please select the option **"Other"** and key in the language code of the required language. Please refer to the language codes below. If no subtitle display is required, please select **"Off"**.

Language codes

6565	Afar	7079	Faeroese	7678	Lingala	8375	Slovak
6566	Abkhazian	7082	French	7679	Laothian	8376	Slovenian
6570	Afrikaans	7089	Frisian	7684	Lithuanian	8377	Samoan
6577	Amharic	7165	Irish	7686	Latvian/Lettish	8378	Shona
6582	Arabic	7168	Scots/Gaelic	7771	Malagasy	8379	Somali
6583	Assamese	7176	Galician	7773	Maori	8381	Albanian
6588	Aymara	7178	Guarani	7775	Macedonian	8382	Serbian
6590	Azerbaijani	7185	Gujarati	7776	Malayalam	8385	Sundanese
6665	Bashkir	7265	Hausa	7778	Mongolian	8386	Swedish
6669	Byelorussian	7273	Hindi	7779	Moldavian	8387	Swahili
6671	Bulgarian	7282	Croatian	7782	Marathi	8465	Tamil
6672	Bislama	7285	Hungarian	7783	Malay	8469	Tegulu
6678	Bengali	7289	Armenian	7784	Maltese	8471	Tajik
6679	Tibetan	7365	Interlingua	7789	Burmese	8472	Thai
6682	Breton	7378	Indonesian	7865	Nauru	8473	Tigrinya
6765	Catalan	7383	Icelandic	7869	Nepali	8475	Turkmen
6779	Corsican	7384	Italian	7876	Dutch	8476	Tagalog
6783	Czech	7387	Hebrew	7879	Norwegian	8479	Tonga
6789	Welsh	7465	Japanese	7982	Oriya	8482	Turkish
6865	Danish	7473	Yiddish	8065	Punjabi	8484	Tatar
6869	German	7487	Javanese	8076	Polish	8487	Twi
6890	Bhutani	7565	Georgian	8083	Pashto/Pushto	8575	Ukrainian
6976	Greek	7575	Kazakh	8084	Portuguese	8582	Urdu
6978	English	7576	Greenlandic	8185	Quechua	8590	Uzbek
6979	Esperanto	7577	Cambodian	8277	Rhaeto-Romance	8673	Vietnamese
6983	Spanish	7578	Kannada	8279	Romanian	8679	Volapuk
6984	Estonian	7579	Korean	8285	Russian	8779	Wolof
6985	Basque	7583	Kashmiri	8365	Kinyarwanda	8872	Xhosa
7065	Persian	7585	Kurdish	8368	Sanskrit	8979	Yoruba
7073	Finnish	7589	Kirghiz	8372	Serbo-Croatian	9072	Chinese
7074	Fiji	7665	Latin	8373	Singhalese	9085	Zulu

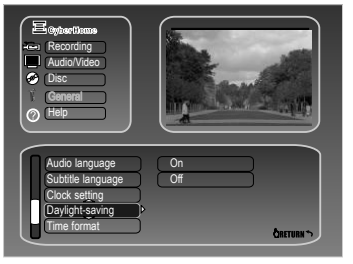
1. Keep in mind that if the DVD you are using does not support the language you choose, the default of the disc will be used. The default of the disc will also be used, if the default language of the disc is different to the setting you made in the language menu of your DVD recorder. It only works, if the disc has no default setting for the language.

USER PREFERENCES



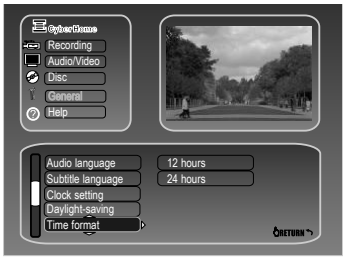
Clock setting

In this option you can set the time and date. Press the button **"ENTER"** on your remote control to enter this setup page. First, select the current date in the format **"dd / mm / yyyy"** by pressing the direction buttons **"▲"** and **"▼"** or the number buttons **"0-9"** on your remote control. Navigate to the time input field with the button **"►"** to set the time in the format **"hh : mm : ss"** by using the direction buttons **"▲"** and **"▼"** or the number buttons **"0-9"** on your remote control.



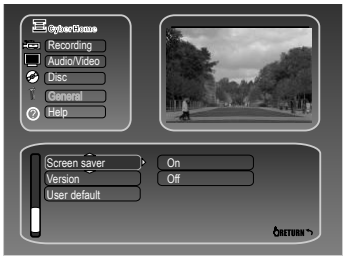
Daylight-saving

Here you can set the automatic daylight-saving to **"On"** or **"Off"**. Set this feature to **"On"**, if you want that the DVD recorder changes the time automatically according to summertime and wintertime. Select **"Off"**, if no automatic daylight-saving is required.



Time format

Set the time format to **"12 hours"**, if you want the time to be displayed in twelve-hour format (e.g. used in UK). Select **"24 hours"**, if the time shall be displayed in day-long format.



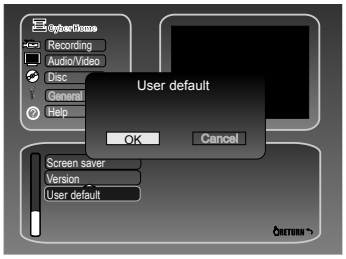
Screen saver

In this menu you can enable or disable the screen saver. The screen saver protects your TV's cathode-ray tube from "screen burn" that could result from a static image being displayed for a prolonged period. The screen saver will automatically start within a few minutes of video inactivity, if you select the **"On"** setting.

Version

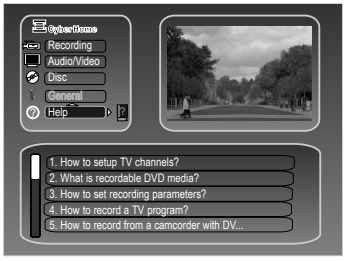
Highlight the menu point **"Version"**. On the screen will now be displayed the current firmware information of your DVD recorder. This may be needed for technical support.

USER PREFERENCES



User default

If you would like to return all settings of your DVD recorder's setup menu to the user defaults, choose **"User default"**. This will reset all recording, video, audio, disc and general settings with exception of the parental control and the password. After all, the parental control and the password features would be of little use, if your kids could simply clear them with a reset.



Help menu

In this menu the frequently asked questions and answers are listed. Highlight the **"Help"** page and press **"ENTER"** on your remote control to enter this menu. Use the direction buttons **"▼"** and **"▲"** to highlight the required question and then press **"ENTER"** to confirm. The answer for the required question is displayed in the top right field on the screen. Please see below the questions listed in the Help menu:

1. How to setup TV channels?
2. What is recordable DVD media?
3. How to set recording parameters?
4. How to record a TV program?
5. How to record from a camcorder with DV outputs?
6. How to record from a camcorder with audio/video outputs?
7. How to record from a VCR?
8. How to setup a scheduled recording?
9. Why do I see a caution sign when pressing the "RECORD" key?
10. Why a scheduled recording fails?
11. How to edit recorded contents?
12. Why is it necessary to finalize a recordable disc?
13. How to erase a DVD+R/RW disc?
14. How to achieve a better picture quality via SCART output?

TROUBLESHOOTING

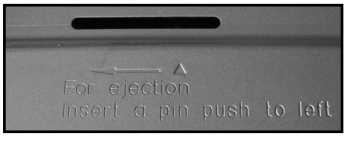
If there is a problem, it does not mean a malfunction. Before sending for repair, please examine your device according to the following:

The DVD recorder does not power on.	• The power cord may be loose or not plugged in. Please make sure that the power cord is secure in the AC socket. • The unit may be in standby mode. Turn the unit on with the **"POWER"** button on the remote control or the button **"STANDBY/ON"** on the front panel of the DVD recorder.
The disc tray cannot be closed.	• The disc may not be properly placed. Please place the disc in again.
Your DVD recorder does not respond to any button being pressed, and the display shows "PROCESS".	• The device is in initial installation mode. Switch on the TV and select the audio/video programme of your TV set (e.g. AV1 or AV2), if necessary. The virgin mode setup page appears. Please refer to section **"Initial installation"** in chapter **"Installing your DVD recorder"** (see pages 26-27).
Your DVD recorder does not respond to any button being pressed.	• There is no power. Check if the power cord is secure in the AC socket and the device. • A programmed recording (timer) is currently being made. If desired, cancel the recording with the Stop button **"■"** or the button **"STAND-BY/ON"**. • There is a technical problem. Disconnect the device from the power outlet for 30 seconds and plug in the power cord again.
The remote control does not work.	• Make sure you are aiming the remote control directly at the DVD recorder's remote control sensor, located on the front of the device. • There is a technical problem. Take out the battery from the battery compartment, wait for 10 seconds and re-insert it. • Make sure there are no obstacles between the remote control and the device. • The battery may be used up. Change the battery in the remote control. • You could be using the remote control too far away. Try closer to the recorder.
No picture.	• Make sure the video cable connecting the DVD recorder to your TV is secure. • The TV is not set to the DVD/Video mode. Set the TV to the audio/video programme (e.g. AV1 or AV2).
The picture appears stretched or squeezed.	• The video aspect ratio may be set wrong for your television type. Enter the OSD menu and select the menu **"Audio/Video".** Change the **"TV shape"** setting to 4:3 panscan if you are using a standard TV, or change to 16:9 if your TV is a wide-screen type.
Poor playback on DVD recorder (distorted picture/distorted sound).	• Your TV set is not properly set. • The disc may be dirty. Try cleaning the disc. • Sometimes there may be short picture interferences that are not caused by your DVD recorder.
No sound from TV or speakers.	• The volume is set to minimum. Raise up the volume. • Make sure the audio cables connecting the DVD recorder to your speakers, TV or receiver are properly connected. • The movie is paused. There is no sound during pause or search modes. • There may be a mistake in the sound settings. Reset to the original settings.

TROUBLESHOOTING

A specific disc does not play.	• There is no recording on the disc. • You inserted the wrong disc type. • The parental control feature is activated. For deactivating the parental control feature please read section **"Parental control"** in chapter **"User preferences"** (see page 70). • The disc may be dirty. Try cleaning the disc. • Make sure the disc is placed with the labeled side facing up. • The region code of the disc may not match that of the DVD recorder. In this case, the disc cannot be used. • The disc may not be compliant to an industry standard. • You have selected the wrong source (**"SOURCE"** button). Select the correct source (DVD). • The cables connecting the TV and the DVD recorder may be loose. Check the cables.
(Super) Video CDs cannot be played.	• It is possible that this (Super) Video CD contains a menu and the **"PBC"** function on your DVD recorder is switched off. Press the button **"MENU"** on the remote control while the (Super) Video CD is inserted and select **"PBC On"** by pressing again the **"MENU"** button.
Subtitles are not shown.	• Press the **"SUBTITLE"** button on the remote control to switch the subtitles on. • The subtitle display is only supported on DVDs.
No recording possible.	• The TV channel you want to record is not stored or you selected the wrong programme number. Check the TV channels stored. • The TV signal is unstable. No recording can be made. A message appears on the TV screen. • A finalized (finished) DVD+R has been inserted. Change the disc. • No disc has been inserted for recording. A message appears on the TV screen. • A copy-protected disc has been inserted for recording. It is not possible to copy a copy-protected disc. On the TV screen appears the message **"Signal is copy protected."**
Programmed recording does not work.	• You have set the wrong time or date. Check the time and date. • You have not set the timer properly. Check the programmed recordings (timer block) by pressing the button **"SCHEDULE"** on the remote control. • A finalized (finished) DVD+R has been inserted. Change the disc.
There is picture or sound interference with the TV reception or the picture quality is not satisfying.	• During playback via the internal TV tuner (**"SOURCE"** button), switch to recording mode **"HQ",** as this will give you the best possible picture quality. How to change the recording mode is described in chapter **"Manual recordings"**, section **"Selecting the recording mode (quality)"** (see page 53). • Have your antenna or cable TV signal checked. • It may be necessary that a TV channel has to be set again or fine tuned. Please read the section **"Manual TV channel search"** in chapter **"Installing your DVD recorder"** (see page 28).

TROUBLESHOOTING

Distorted sound coming from a connected hi-fi amplifier.	• The DVD recorder is connected to the phono input of your amplifier. This input socket is provided only for record players without a preamplifier. Select a different audio input.
The picture is distorted or black-and-white during playback.	• The TV system of the disc does not match that of your TV (PAL/NTSC). • The recording can only be made in colour when the TV channels or the additional connected devices send a colour signal. Black-and-white signals without colour information (colour subcarriers) cannot be recorded in colour.
No sound signal at the digital output.	• Check whether the sound settings match the selected inputs and the additional connected devices. • You have inserted an MP3 disc. In accordance with SDMI (Secure Digital Music Initiative), the digital audio output is turned off during MP3 playback. This is not a defect of your DVD recorder.
Flickering black-and-white picture	• Please check if the DVD recorder is connected to a VCR or a TV/Video-Set. If so, there will be the Macrovision copyright protection. Please directly connect your device to the TV and not to the VCR.
Ejecting a trapped disc. 	• The emergency eject feature allows you to remove a disc from the disc drive in the very rare case that the tray will not open. - Disconnect the recorder from the power supply. - On the bottom of your recorder you can see one larger oval opening (please see the picture on the left side). - Push the plastics inside the emergency hole with help of a slim and plane object (e. g. slotted screwdriver) to the left side (about 2 cm; see the arrow in the picture and on the device). The tray will then open. - Remove the disc from the tray. Close the tray again by hand.

SPECIFICATIONS*

General specifications

Playable disc types:	DVD-Video, DVD+R, DVD+RW, DVD-R, DVD-RW, Audio CD, Video CD, Super Video CD, CD-R, CD-RW, MP3, Kodak Picture-CD, JPEG, MPEG, WMA
TV systems supported:	NTSC, PAL
Video out formats:	CVBS, RGB, S-Video
Video in formats:	CVBS, S-Video, DV in (IEEE 1394)
Power supply:	AC 100~230V, 50/60Hz
Power consumption:	30W
Power consumption (standby):	4W (lower-power) 2.5W (standby)
Dimensions (W x H x D):	350mm x 55mm x 240mm
Weight without packaging approx.:	2.07 kg
Power outage/no power:	Channel and timer information remain saved for up to 1 year, the time is saved for up to 4 hours.
Operation status:	Horizontal
Operation conditions:	5°C to 35°C (41°F to 95°F)
Humidity:	25% - 75%

Rear connections

AV SCART out (SCART-1):	0.7Vpp (75 ohm)
AV SCART in (SCART-2):	0.7Vpp (75 ohm)
S-Video out:	Hosiden 4-pin, (Y) 1Vpp (75 ohm), (C) 0.3Vpp (75 ohm)
Composite video out:	Cinch (yellow), 1Vpp (75 ohm)
Analogue audio out:	Cinch (white/red)
Digital audio out:	Coaxial
RF antenna in:	Coaxial 75 ohm (IEC type)
RF TV out:	Coaxial 75 ohm (IEC type)

Front connections

Composite video in:	Cinch (yellow)
Analogue audio in:	Cinch (white/red)
DV IN:	IEEE 1394 4-pin

Audio features

D/A converter:	24 bit / 96 kHz
A/D converter:	24 bit
Frequency response:	DVD (PCM 96 kHz): 2 Hz to 44 kHz DVD (PCM 48 kHz): 2 Hz to 22 kHz CD/Video CD (44.1 kHz): 2 Hz to 20 kHz (± 0,5 dB)
Signal-to-noise ratio:	>85 dB
Dynamic range:	>85 dB
THD + N vs. Level:	>85 dB

*Designs and specifications are subject to change without notice. All of the company or product names mentioned in this manual are the trademarks or registered trademarks of their respective holders.

GLOSSARY

Bit

Smallest information unit in the EDV as well as in digital transmission systems. Indication for the height of the resolution in the uncompressed PCM size.

CD-R & CD-RW

Recordable optical disc formats that can be used as Video CD or MP3 with your DVD recorder.

Cinch-Audio

Through the Cinch sockets, the Dolby Digital or MPEG sound will be released from the DVD as analogue two-channel signal - independent from the channel number on the DVD. If a DVD plays with dts sound, the output will be silent. In this case you must connect a stereo system or an analogue surround amplifier/receiver.

Cinch-Video

The DVD recorder sends the composite video signal through the yellow Cinch socket, either directly to the corresponding socket on the TV or indirectly through an AV receiver. Cinch is the qualitatively worst picture connection and should only be used if there is no other option.

Composite video

The most common connection for coloured video pictures that uses a single RCA cable.

Digital output

The DVD recorder releases its sound information bit by bit through the digital output. The way the sound will stream out of the socket must be adjusted in the OSD menu. Most important criteria: Which device is connected to the digital socket?

Dolby Digital

A digital surround sound system which is able to transfer up to 5 sound channels plus a sub-bass channel (5.1 or 3/2.01). Developed by Dolby Laboratories.

dts (not supported)

Digital Theatre System. Digital sound system, which works with 5.1 channels and corresponds to Dolby Digital on the first view. It differs regarding the data reduction. The dts system works with higher data rates, i.e lower data reduction. It transfers about 4 times as much data as the Dolby Digital or MPEG 2 process and therefore needs appreciable more storage space on the DVD.

Dual-Layer DVD

A DVD disc that has two layers on a side. A single-sided, dual-layered DVD can hold almost four hours of video and audio, and is also known as a DVD-9.

DVD

Digital Versatile Disc is a new storage medium that combines the convenience of the compact disc with the latest digital video technology. DVD-Video uses modern MPEG 2 data compression technology that enables an entire film to be stored on a single five inch disc. DVDs come in different formats, such as single-sided or double-sided. Each side can have a single layer or two layers of data.

DVD-5

A DVD that is single-sided, single-layered, holding up to 4.7 GBytes of data.

DVD-9

A DVD that is single-sided, dual-layered, holding up to 8.5 GBytes of data.

DVD-10

A DVD that is double-sided and single-layered, which holds up to 9.4 GBytes of data. This disc must be manually flipped to use both sides.

GLOSSARY

DVD-18	A DVD that is double-sided, dual-layered, holding up to 17 GBytes of data.
DVD+RW	DVD+ReWritable uses phase change media, the same technology on which rewritable CDs are based. A high-performance laser is used to change the reflective properties of the recording layer; this process can be repeated more than thousand times.
DVD+R	DVD+R (write-once DVD). Unlike a DVD+RW disc, the disc can only be written to once. If it is not finalised after a recording, further recordings can be added to it in the DVD recorder. Old recordings can be deleted but can no longer be overwritten. Before this disc can be played in a DVD player, it must be finalised in the DVD recorder. Once this process is completed, no further recordings can be added.
kHz	Kilocycle. KHz is the indication for the height of the scanning rate with which an analogue signal (PCM) is interrogated for the following analogue/digital transformation.
Letterbox	Transmission of a wide-screen film with bars on top and on bottom on a standard size television.
Macrovision	Analogue copy protection which scrambles the video signal when used with VHS recorders. Also has an effect on some projectors and monitors.
MP3	A compressed audio format. MP3 files recorded on CD-R or CD-RW media are suitable for playback on your DVD recorder.
MPEG	Moving Picture Experts Group. Compression method that is used for digital video records, e.g. for Video CDs or CDs.
NTSC	National Television System Committee, television norm among others in the USA and Japan (from 525 lines only 480 lines will be transferred with a picture changing frequency of 60 half pictures per second).
PAL	Phase Alternation Line, television norm in Germany and other European countries (from 625 lines only 576 lines will be transferred with a picture changing frequency of 50 half pictures per second).
Panscan	When used with a normal TV (4:3 aspect ratio), this setting results in the typical “Panscan” display, where a movie is clipped on the sides to fit on the TV screen.
PCM	Pulse Code Modulation. Linear data stream, which arises from the scanning of an analogue signal in the same intervals.
PDC	Programme Delivery Control. Same function as VPS (see VPS).
Region code	DVD movies are produced with region encoding to restrict distribution of titles to certain areas at certain times. To play back a DVD title with a specific region code, you will need a DVD recorder with the same region code.
RGB	Electrical transmission possibility for video pictures, i.e. it is a picture signal, which is splintered according to the primary colours of the TV (red, green and blue).

GLOSSARY

SCART socket	The SCART socket is the simplest connection between your DVD recorder and your TV. It transports not only the picture signals, but also the sound signals.
S-Video	S-Video offers significantly improved video signal performance through a basic composite video connection. To use this type of connection, your TV must have an S-Video input.
SVCD	Super Video CD is a further development of the Video CD. It uses MPEG 2 video compression with a higher and variable data rate.
VCD	Video CD. A digital video disc format that uses MPEG 1 video compression. The picture quality is roughly that of VHS tapes.
VPS	Video Programming System. VPS is used to control the start and duration of TV channel recordings. If a TV programme starts earlier or ends later than it was scheduled, the DVD recorder will still switch itself on and off at the correct times.
Wide-screen	Transmission of a wide-screen film on video with black bars on top and on bottom.
WMA	Windows Media Audio is a streaming media format from Microsoft.

SERVICE

IN THE FIRST INSTANCE, PLEASE REFER ANY QUESTIONS ABOUT THIS PRODUCT TO THE RETAILER YOU PURCHASED IT FROM!

If the retailer is unable to help, alternatively please refer to our website **http://www.cyberhome.de/en/FAQ.html** or contact:

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